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CLINICS.

Clinical Lectures.

ON SOME DISORDERS DEPENDENT UPON GENITAL IRRITATION; PROPER TREATMENT OF TALIPES, ETC.

AN ABSTRACT OF A CLINICAL LECTURE DELIVERED AT BELLEVUE HOSPITAL.

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[Reported by F. Gundrum, M.D., and revised by the Author.]

CASE I.—The first case I have to show you to-day is one of loss of co-ordination and spastic contraction of the lower extremities, with strongly marked talipes equino-varus in both feet.

The mother gives the following history: The patient's name is Anna, and she is ten years of age. She seemed to be normally developed at birth, though the mother thinks the lower extremities were not proportionately well developed with the trunk. Three months after birth an abscess began to develop in the neck. It was finally opened and emptied of its contents. It continued to discharge pus for a long time. She also had some difficulty of vision, but the cause is not very clear. Her health became very delicate and remained so for several years. When she was about thirteen months of age she made some efforts at creeping, and at two and a half years she began to walk some, which was, however, very imperfectly and awkwardly done. As she continued to make efforts at walking, her knees began to give way and she became quite "knock-kneed." She also no longer put the whole plantar surfaces on the floor, but gradually began to walk "on her toes." In this awkward condition she continued to get around in the room by the aid of assistants, chairs, and beds, until five years of age, when she met with a serious accident. She fell a distance of thirty feet, through a skylight. Although no apparent serious damage had been sustained, the child made no more efforts at locomotion for nearly two years. Many efforts have been made by surgeons and at some of the orthopædic institutions of this city to correct her deformities, but with no success worth speaking about.

She is able, by the aid of assistants, to move small distances, or stand up while holding to a chair, and when she does so she stands on "tip-toe," and her knees are tightly pressed together. The mother states that she has been annoyed, constantly, from her birth to the present time by thread worms (*oxyuris vermicularis*), making her existence almost unbearable. They accumulate in the rectum in great numbers. They torture her so that the mother has to use enemas, or extract them with her finger. They not only produce great irritation in the rectum, but voluntarily leave that abode and get on the verge of the anus and into the genital tract. The little girl has always suffered from genital irritation. She desires to urinate often, and suffers considerable pain during the act. She puts her hands to her genitals frequently, but the mother is positive that it is for no vicious purpose.

About three years ago her general health began to improve, and has continued to do so until now, when we find her a well-nourished girl of average size. About four weeks ago a leucorrhœal discharge was noticed, which continued to increase for three weeks, at which time blood was mixed with it. Both discharges, however, have ceased. The mother thinks the child is somewhat backward intellectually. As you now observe she is unable to stand alone. When we ask her to move the lower extremities she makes many efforts before she succeeds, and then only slightly raises the thigh. When she endeavours to walk the limbs are moved altogether at the hip, while the thighs are strongly adducted, and as she brings one limb in front of the other, it crosses in front of its fellow. When the other is brought forward, it strikes the opposite limb behind. The upper extremities also lack in the co-ordinating power, as you see the movements of her arms are slow, halting, and uncertain. She has a peculiar unintelligent, silly look. We are unable to fix her attention on anything long at a time. She soon gets out of patience, cries, and the next moment bursts out into a laugh—laughs while the tears still trickle down her cheeks—showing in a very marked degree what is known as hysteria. Having bared her lower extremities, you will observe that her limbs are of good size, the thighs slightly flexed, and strongly adducted, and the legs are flexed on the thighs. The feet are in extreme extension, forming talipes equinus. Anterior to the metatarsal joints the feet are turned inwards, forming the deformity to which we apply the name of varus.

When I come to examine the plantar surfaces I find the arch deepened and shortened, and the fascia very tense. So here there is a double deformity, an equinus and varus. When two deviations occur in the foot at the same time, the names are associated, prefixing that one which represents the greater deformity; so in this case, the equinus being the greater, the deformity is called talipes equino-varus.

The deformity is much more marked in the right foot, and you can notice this hard projection in front of the tibia, which is the scaphoid subluxated. If I ask the child to separate her thighs, she makes some effort but fails to get control of her muscles. By taking hold of the knees and making an effort to separate them for her, I find it takes considerable force, gradually applied, to make abduction to any extent, the muscles being rigid and unyielding. I find the muscles of both lower extremities in the same condition. Having flexed the leg upon the thigh at an angle of about 45° , so as to relax the extensors of the foot, I will see how near the foot can be restored into its normal position. As you see, by great force,

gradually applied, I am enabled to bring the foot at right angles with the leg, or nearly so. By increasing the flexion of the leg, so as to relax the gastrocnemius and soleus as much as possible, I can carry the extension of the foot still a little farther. I have continued this now as far as possible. You will now ask the question, and justly so, if the extensors can be stretched thus far, why not farther—gradually, until they allow the foot to assume its shape, and the deformity is cured.

This question is easily decided by the following test. Having carried extension as far as possible, I have put the tendo-Achillis tightly upon the stretch. While holding it in that position, I take my thumb and make additional pressure on it, and, if under this additional tension there is no reflex spasm, you can stretch it still further, and a cure may and can be effected without tenotomy; but, if, on the contrary, that additional pressure produces reflex spasm at the time, tenotomy must be performed, as you can never cure your case without it. You see the additional tension produces immediately a reflex spasm, and therefore we shall perform tenotomy. In bringing both tendo-Achilles under this test, also the plantar fasciæ, we find that they give the reflex spasms, and must be divided. When you obtain this test, you may know structural change has taken place, and no amount of tension, however applied, will ever restore the parts into their normal position.

The assistant will now proceed to give the child chloroform, but before doing so I will see that her clothing is not constricting her neck, chest, or waist. This is a very important point to look after before the administration of an anæsthetic, and I advise you to never neglect it when you come to practise your profession.

I now show you the instrument I shall use to divide these tendons and fasciæ—my tenotome. The instruments you will find for sale in most of the establishments are a sharp-pointed straight knife. Never use one of them under any consideration. They are dangerous.

The next objection is that they have a straight cutting edge. This instrument you see has a convex cutting edge and a concave strong back. It is very narrow, not exceeding a line, and has a broad convex point. Here is an instrument that claims to be an exact counterpart of mine, but you see the blade is twice as wide. I have never met with an accident in dividing the muscles, tendons, and fasciæ, and I attribute no little to the instrument I use. If you use a sharp-pointed tenotome, if a vessel or nerve comes before it, you are certain to puncture it, but with this rounded point, which is not very sharp, such tissues will slip away before it.

The patient having become completely narcotized, I shall proceed with the operation.

Turning the patient over on her side, so as to turn the plantar surface upwards, I have the fascia put tightly on the stretch by an assistant grasping the front part of the foot, and, making strong extension, I search for the inner border of the plantar fascia, and, having found it, I introduce the tenotome flatwise through the skin, and now I am able to feel the inner border of the fascia with the point of my knife. I gradually sink my instrument until I feel I am under the fascia. Then I pass the knife horizontally under it until I have reached the other side. I now turn the cutting edge of the instrument upward against the fascia, and my thumb is placed over it. I press the fascia on the knife, at the same time giving the latter a gentle to-and-fro motion until all the contracted tissues are divided. I

turn the knife on the flat again and withdraw it, and as I do so I follow it with my thumb and squeeze out what blood there may be in the wound and guard against the ingress of air. On removing my thumb I apply a piece of adhesive plaster quickly, so as to hermetically seal the wound, over this I place some cotton wool, and secure both with a roller. The assistant now renders the tendo-Achillis tense by forcibly extending the foot, while I divide the latter just as I did the plantar fascia. After having divided, hermetically sealed, and applied the cotton and roller, as above described, the whole foot, excepting toes, is enveloped in cotton wool, to guard against injurious compression, and a roller is applied over the foot and ankle for about five or six inches above the latter. An extra thickness of cotton should be applied to the sole of the foot.

I now bring the foot straight on into its normal position, which you see, the foot being at right angles with the leg, and as I cannot sit here and hold it until the result of the operation shall be repaired, I shall endeavour to accomplish the same end by the following dressing: Take a thin board, such as a shingle or the lid of a cigar box, and cut it so that it shall be about a quarter of an inch wider, and about three inches longer than the foot, modelling it after the shape of the latter. Then take a strip of adhesive plaster about two and a half inches wide, and of sufficient length to surround the foot board, and reach above the knee. Now take the board into your hand, the heel towards you, and wind the adhesive plaster around it lengthwise, commencing within an inch or two of the front of the board on the under surface (the adhesive side being next to the board). Bring it forward over toe end, back over the heel end, and then forward on the under side to the front, catching the end where you started. After having wrapped the board in this manner, your adhesive plaster should still be sufficiently long to reach half way up the thigh.

Take another strip of adhesive plaster from one to two feet long, owing to the size of the foot, and an inch or two wide, and fasten it about its middle to the heel of the board, in such a manner, that about half the width of the plaster will catch the under surface of the heel of the board. I do this in order to get a good hold so that it cannot slip off. Now apply a thick layer of cotton on the board that is to go next to the foot and apply a roller pretty firmly, so as to prevent the cotton from slipping. This always should be done, so as to thoroughly protect the bottom of the foot from pressure. In many of these cases the tissues about the feet are extremely insensible to irritants, and having a low vitality extensive sloughing might be the result from applying the board if not well cushioned.

Now apply the cushioned surface of the board to the sole of the foot, allowing the heel of the board to project an inch beyond that of the foot. While holding the foot at right angles with the leg, and the board firmly against the bottom of the foot, take one end of the plaster fastened to the heel of the board, bring it forward across the dorsum of foot to the opposite side of the foot from where you started, and pass it over the edge of the board to the under surface, where you fasten it. Then take the other end of the same plaster and follow the same movements, except that you carry it to the opposite side. After having completed this sandal-like fastening you take a roller and firmly secure the "foot-piece" to the foot. Should the foot have a tendency to turn in or out, an extra strip of adhesive plaster becomes necessary.

In this child, you see, the foot is inclined to turn inwards, and, therefore, I shall take this strip of plaster, which is about one and a half inch wide

and a foot and a half long, start with one end on the outer side and front part of the foot, pass it across the dorsum toward the inner border under the foot and bring it to the outer edge and secure it with a few turns of a roller. The wide strip of adhesive plaster at the front of the board is now carried up the leg to the knee, or, where a good hold can be obtained, as in very little children, half way up the thigh. The guy is now carried up on the outer or inner side of the leg, as the case may be, and tension applied until the lateral deviation is corrected. The strip carried up the front is applied to the leg, while the foot is at right angles—both are secured to the leg by a roller. The extra lengths of the plasters are reversed, which causes the dressing to remain in place longer. One caution is necessary in applying this dressing, viz., *that you leave the toes exposed so you can always keep watch of the circulation.*

Having completed the dressing of this, the right foot, I shall proceed to the left one, where I shall divide the same tissues and apply a similar dressing.

You see both feet dressed, and perfectly straight. Were I now to put the child in the erect posture she could stand squarely on the soles of her feet. This is a simple, inexpensive dressing, obtainable anywhere, and for effectiveness is superior to any or all the dressings I know anything about.

Formerly surgeons did not treat their cases as we have this one to-day. I refer to the correction of the deformity *immediately* after the sections. It was the practice, and I am exceedingly sorry to say is to a great extent still, to allow the foot to remain in its deformed position for a number of days, until the external wound has cicatrized, and the division of the tendon repaired to a slight degree. As soon as the surgeon thought that glutinous material had been thrown out between the ends of the tendons and began to organize, he then, and not until then, could commence to correct the deformity. He commenced to apply traction, in order to stretch this new material that nature was throwing out between the ends of the tendon. This he was to continue until he had cured the deformity. I have followed this plan myself years ago, but it was tedious, caused the patient untold misery, and seldom succeeded. In the few cases where it did succeed in correcting a deformity, the stretched tendon was too feeble to give proper support.

Meeting with so much difficulty with this method of treatment, and the permanent good accomplished being so seldom satisfactory, I finally concluded to abandon it. I determined to restore the parts immediately after performing tenotomy, being certain the result could not be much worse if the divided ends never united than where the union was so feeble. But to my great surprise and satisfaction I discovered that, after ten to twelve days, the patient could move his foot by bringing into action the muscle of which tendon had been severed—clearly showing that union was possible while the divided ends were separated. Since then I have abandoned the old for the new method, and after many years of a large field of experience, I pronounce the latter method as the proper one.

This is to me an extremely interesting case. I have shown you several cases during the last winter in my clinic, very similar to this, in male children due to congenital phimosis. In them, as in this little girl, there was loss of co-ordination, and paresis and rigidity of the muscular tissue of the lower extremities, the nervous system exhausted, and the mind much impaired, amounting in one case to an idiotic condition. In none

of our cases, however, have we noticed the hysterical condition that we see in this little girl. What is the condition of this little girl due to? I believe it to be due to genital irritation, and I also believe that the source of irritation has been the presence of the oxyuris in the genital tract.

The future treatment of this patient will be to remove the source of irritation of the genital organs by destroying, if possible, the parasite which produces it, and to restore muscular power.

I shall leave on this dressing for eight or ten days, and then remove it, when I shall expect to see all the incisions firmly united. The feet will then be redressed for a week or two longer, until the tendons and fasciae have firmly united. I shall then maintain the feet in proper position by the aid of properly fitting shoes, and elastic force if necessary, while I restore the muscles to a healthy condition by the use of massage, properly directed gymnastic exercise, electricity, etc. etc.

CASES II. and III.—I have next to show you a pair of male twins. The mother brought them to my office some two weeks ago to consult me in regard to a hernia, which had been developed in each since their birth. I found an inguinal hernia in each on the same side. While examining the hernia of the first child I discovered that the penis was unusually large, and in a state of semi-erection. On questioning the mother she stated that the penis was in erection a great deal of the time; that the children cried a great deal; that when they urinated they strained very hard, and screamed as though they were suffering extremely. Both were in the same condition. On closer examination the opening in the prepuce was found extremely small, and it was with great difficulty that the mouth of the urethra could be seen. The latter was very red and angry looking, and on being touched a spasm of the lower extremities followed. Behind the corona glandis there was noticed a large, hard swelling.

There is not the least doubt in my mind, gentlemen, but that the hernia is a result of the phimosis. The very small opening in the prepuce which prevented a free discharge of urine, and the extremely irritable condition of the mouth of the urethra, causing excruciating suffering every time urine passed over it, were the cause of the crying and straining which brought on the hernia.

I consider it for these children extremely fortunate that this genital irritation has been discovered so early—before it has had time to seriously enervate the nervous system with all its evil consequences. In order to prevent any further ill effects on the system, it will be necessary to free the glans penis in each one by an operation.

I will now perform the operation of circumcision. I catch hold of the end of the prepuce with my fingers and draw it forward. I now place a pair of Henry's forceps in front of the glans, grasping the prepuce. When I have drawn through the amount of prepuce I wish to excise, I firmly close the blades of the forceps, and lock them. Having done this I take a sharp bistoury and cut off the prepuce in front of the blades of the forceps. I now unlock the forceps, and free the prepuce. As you can all see, I have cut off the outside skin only, the mucous membrane remaining. I have not enlarged the opening in the prepuce in the least, and the glans is as much imprisoned as before.

I have seen several cases where the surgeon, when he had gone thus far, thought he had completed the operation. Only a few days ago a boy, eight years old, was brought to me from Florida where this was the case. After many months cicatrization took place, and left the child worse than

he was before. The cicatricial tissue had contracted, and was hard and unyielding. To avoid any such bad consequences you now see me pass this small grooved director into the preputial opening in front up to the glans. You see I do this with considerable difficulty, owing to the agglutination of the prepuce and glans. I am unable to carry the director entirely up to the corona, consequently I shall divide the mucous membrane as far as the director has been passed. Having done this I now separate the mucous membrane from the glans, by tearing it loose, with my thumb and fingers.

Having entirely separated the glans and prepuce, you see, the corona is very red, and behind it I find hardened, gritty smegma. Having completed the operation thus far, I want next to call your attention to an extremely important part of this procedure, viz., the frænum. This you will usually find very short, with pockets on either side.

Never consider your operation completed until you have broken down this shortened band of mucous membrane. Should you neglect it your operation will, in all probability, remain without any benefit to the patient. Having broken down the band of mucous membrane, the frænum, see that neither it nor the outside skin in any way constricts the penis—if *there are any constricting bands they must be divided*. The operation being completed I shall dress it as follows: In very small children I seldom use sutures, but bring the cut edges of the skin and mucous membrane accurately together, behind the glans, and then take a soft piece of old linen cloth, or lint, and wrap around the penis over the coaptated cut edges. I allow the meshes of the cloth to become saturated with blood, and if hemorrhage does not cease I apply over this some styptic cotton. Then I form a circular pad, with a hole through the centre, into which the penis is placed and allowed to remain, excepting when the dressings are renewed, until cicatrization is complete. A pledget of lint dipped into water is placed over the glans, and the whole retained in place by a diaper. This dressing will remain on for five or six days, when I shall expect union to have taken place.

There is one thing I want to caution you against, and that is, if cicatrization should be delayed, to guard against subsequent adhesion of the prepuce to the glans, or the formation of cicatricial bands. Many a surgeon has met with failures by not observing this precaution.

Note. May 1, 1880.—The first case, that of the little girl, has improved beyond all expectation. The dressings of both feet were removed on the eighth day, and very fortunate it was. Although the feet were protected from pressure by thick layers of cotton-wool, if the dressing had been allowed to remain on a few days longer extensive sloughing on the instep would have been certain. As it was, only superficial destruction of the skin over a small area took place. The same dressing was reapplied, and changed once in two or three days for three weeks. Properly-fitting shoes were then applied (ordinary shoes made to fit the child), which retained the feet in proper position without any elastic force. Since then she has had electricity applied every other day, and the muscles of the thighs and legs have been manipulated daily, the peronei receiving especial attention. The general health has been improved by proper dieting and plenty of outdoor exercise. The patient has received daily training in the use of her muscles, and especial effort has been exerted to “hitch her brain to her muscles”—to improve her will-power, and inspire confidence in her own capabilities.

She is now able to abduct her thighs to their fullest capacity—her limbs are perfectly straight. They have increased in size and strength. She is now able to walk alone across the room. When the feet are bared, they can be held perfectly straight; she can extend and flex them very nearly perfectly. When they are carried to extreme extension, the feet turn slightly inwards, showing a deficiency of power in the peronei muscles.

F. G.

ON THE "SUMMER COMPLAINT" OF INFANTS.

A CLINICAL LECTURE.

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GENTLEMEN: The hot weather is now approaching, during which the most prevalent and fatal disease of the cities is the so-called "summer complaint" of infants. It is especially fatal in the large cities of the Atlantic coast. It is an intestinal catarrh, which begins to appear in the middle and latter part of May, and becomes more and more frequent, reaching its maximum prevalence and severity in mid-summer, after which new cases are less and less frequent till the last of October, when the epidemic gradually disappears, and no cases remain except such as have lingered from the hot months.

The "summer complaint" is, anatomically, a catarrh of the lower part of the small intestine, and of the entire large intestine: the inflammatory lesions being, in fatal cases, most marked in the descending portion of the colon, and especially in the sigmoid flexure, where the excrementitious matter is most apt to be delayed and to accumulate. The greater thickening and redness of the mucous membrane in this locality, which I have often observed at autopsies, has seemed to me chiefly due to the irritating nature of the fecal matter, just as the erythematous redness of the skin around the anus present in certain cases, arises from this cause. The ulcerations which are apt to occur in grave protracted cases, and which are circular and seem to correspond in site with the solitary glands, are also most numerous in the descending colon, and particularly in the sigmoid flexure. Most cases of this disease occur prior to the age of two and a half years; so that the "summer complaint" is almost peculiar to infancy. But the first years of childhood are not entirely exempt.

There are two important factors in the causation of the "summer complaint:" 1st, The atmospheric heat, which acts as a causative agent, not so much by its direct effect on the system—though its direct enervating influence may act to a certain extent, as a cause, by impairing the general tone of the system, and the digestive function in particular—as by producing foul gaseous exhalations from the decaying organic matter, which always exists in considerable quantity in and around the crowded domiciles of the poor in our cities. Abundant observations show that the "summer complaint" is most frequent and fatal in those localities, where the streets, court-yards, and apartments are most filthy. In these places the foul odours are often very perceptible to the visitor. The operation of this

cause seems to me to be similar to the foul air of the dissecting-room, in former times, when the medical student remaining long at dissection was apt to be incommoded by attacks of diarrhœa.

2d. The other cause is not less important, and in a large proportion of cases its action is apparent. It is the use of unsuitable food. For food which the feeble digestion of the infant cannot assimilate, soon begins to undergo fermentative changes, and acts as an irritant and purgative. It is the common opinion among families that the "summer complaint" is most frequent and dangerous in the second summer, but many observations establish the fact, that the first summer possesses no immunity, but on the other hand, the younger the infant, the greater the liability to be attacked if the diet is improper, and the reason why so many infants remain well in the first summer is that they are nourished at the breast, and this second factor or cause is not operative in them.

It is not my intention at this time to speak at length of measures designed to prevent the "summer complaint," or of the hygienic measures required in its treatment, except to state certain facts, which are very important, and the knowledge of which will materially assist the physician who has had little experience with the disease. First, every infant under the age of twelve months in the city should, if possible, have the breast milk during the hot season. If the mother be not competent to furnish it, a wet-nurse should be employed. If it cannot have the breast milk, the family should be urged to go to the country, especially during July and August. Never consent to the weaning of an infant in or just before the hot weather. Statistics which I have preserved, bearing on this point, show a most disastrous consequence. The new diet will not agree, and if weaning be necessary, insist on removal to the country.

But there is a large number of infants in the families of the city poor that are weaned at this improper time, no physician having been consulted, and a large number also who are wet-nursed, but the breast milk is insufficient, and it is necessary to employ more or less artificial food. Now it is very important to decide what kind of food should be given. The shops contain several so-called "substitutes" for breast milk, but the milk of the cow or goat more closely resembles human milk, than do any of these "substitutes," and when sufficiently fresh, and of good quality, it is to be preferred, I think, for most infants. For an infant under the age of two months it should be diluted with one-third its quantity of water; for those between the ages of two and five months, one-fourth or one-fifth its quantity of water should be added; while for those over the age of five months, no dilution is ordinarily required. The infant after the age of one month should not take the breast more frequently than every second hour, and for artificial feeding it is well to have a little longer interval.

The caseum of cow's or goat's milk is apt to coagulate in the stomach of the young infant in large masses, which are with difficulty digested. To aid, in a measure, in preventing this a thin farinaceous food, as barley-water, or rice-water well boiled, may be mixed with the milk. The farinaceous particles intimately mixed with the caseum tend mechanically to prevent the coagulation in large masses. In an infant now under observation in the New York Infant Asylum, cow's milk given in the ordinary way caused vomiting, but, by preparing from it a wine whey, with a small proportion of sherry wine by which a considerable part of the caseum is removed, it is no longer troubled with indigestion and is doing well. The employment of fresh wine whey, thus prepared, will often be

found useful, at least as a temporary expedient, when the infant vomits milk prepared in the ordinary manner, and containing the full amount of casein. It has been proposed by Drs. Rudisch and Jacobi of this city to coagulate the casein, or at least a part of it, by hydrochloric acid before the milk is used. A half teaspoonful of the dilute official acid is added to one pint of cold water, and this is thoroughly mixed with two pints of cold milk, and the mixture is then boiled ten or fifteen minutes. This has been employed for only one infant under my observation, in one of the institutions. It had vomited the cow's milk previously given, and it vomited this as well. I design, however, to give the acidulated milk a more extended trial in the approaching hot season.

Another way of getting rid of a considerable part of the casein, which I have for many years employed, is to allow the milk, as soon as received, to stand for two or three hours, when the casein, from its greater specific gravity, has a tendency to fall, and the cream to rise. The upper portion can then be removed for use. If, as I think is ordinarily the case, this gives too much butter, the superficial layer of cream can be separated and rejected.

Still, there are many infants during the summer months, with whom cow's milk prepared in the usual way does not agree, and will not be likely to agree, however prepared, and condensed milk is found to do no better. For such, a thin gruel made from barley, rice, or wheat flour (the last having by preference been boiled in a dry state, several hours in a bag, and then grated) should be mixed with the milk in equal quantity, or the gruel may be in excess. By such aids we do the best we can to assist the feeble digestive function of the infant, but nothing which we can prepare will take the place of human milk for those under the age of twelve months. Of the various kinds of infants' food found in the shops, Ridge's food, prepared with milk, and Nestle's lacteous farina, prepared with water, have been favourably received, and many infants do well upon them except in the hottest weather. The medical profession will always regard with kindly feelings, the earnest endeavour of the renowned chemist, Baron Liebig, in the last years of his life to prepare a substitute for human milk, so important did he consider the subject of infant diet. Physiology at that time taught that young infants could digest only a very small quantity of starch, since in the first months of life the amount of salivary secretion by which starch is converted into glucose, a necessary change in digestion, is inconsiderable. But now it is ascertained that there is an epithelial ferment, which effects this change as well as the saliva. As Prof. Flint, Jr., says " . . . the intestinal juice of itself is capable of effecting the transformation of starch into sugar to a considerable extent," and an epithelial ferment in the buccal cavity appears to act in the same way (Richet). Therefore it seems that the youngest infant can digest a moderate amount of starch, though farinaceous substances are not to be depended on as a chief article of diet for any infant under the age of four or five months.

But the theory that starchy food could not be digested, or is digested slowly and insufficiently by such infants led Liebig to the preparation of his food in which starch is converted into glucose by the action of malt. Now I have used quite extensively the three preparations of Liebig's food contained in the shops, namely Hawley's, Horlich's and Mellin's, and although they do well, answering the purpose for which they were designed, in the spring, autumnal, and winter months, I have discarded their use in

the summer season. If employed, except in small quantity, they certainly produce a laxative effect, from the large quantity of grape sugar which they contain, during those months when there is special liability to diarrhœal attacks. With these preliminary remarks, I wish to speak more particularly of the medicinal treatment of the summer complaint.

While it is very important that this disease should receive early treatment, unfortunately many cases are allowed to run on for days or even weeks before the physician is called. This neglect I find to be due in many instances to the belief common in the community, that a relaxed state of the bowels renders dentition less dangerous and is a relief to it, so that the infant may have half a dozen alvine discharges each day, and the parents believe that they are salutary, till finally they are alarmed by the evident loss of flesh and strength.

As in many other maladies, the medicinal treatment has materially changed within the last few years. Calomel, formerly administered in small doses in the belief that the function of the liver needed rectifying,—this belief arising from the fact that the stools are green in many cases—has been discarded. The green colour is now known to be produced in the intestines at a considerable distance below the point where the bile enters it, and to be the result apparently of the admixture of the intestinal secretions with the fecal matter, just as the stools sometimes have the normal colour when evacuated and become green from the action of the urine. The old dread of administering opiates to infants, promoted in this country by the perusal of Beck's "Infant Therapeutics," has ceased, in consequence of accumulated observations, showing their good effects, and the little risk which attends their judicious employment. The vegetable astringents, such as kino, catechu, and tannin, are now little used; another agent which is more readily administered, less likely to cause nausea and is more effectual, taking their place.

Occasionally it is proper to commence treatment by the administration of a gentle purgative, as a single dose of castor oil, or a mixture of syrup of rhubarb and castor oil, when there is reason to think that the diarrhœa has been excited or aggravated by some irritating substance which the infant has swallowed, and which should be expelled before measures to restrain the stools are employed; but ordinarily no such preliminary treatment is required, as the diarrhœa has continued so long when the physician is called that any fruits or other substances injudiciously given must already have been expelled, or the history of the case shows that no such substance has been taken.

Our main reliance must be on opium and bismuth subnitrate, for the purpose of checking the stools, and arresting the catarrh, and, as fermentative changes in the milk usually cause an excess of acids in the intestines, on some alkali, as the preparations of chalk. Opium is as useful in checking the intestinal catarrh of infants as it is in that of adults, but I seldom give it or other medicine in the form of powder, experience having taught me that powders are apt to be partly wasted.

For infants under the age of five months opium may be safely and conveniently administered in paregoric, in doses of three drops to an infant of one month, five drops to one of three months, and eight drops to one of five months. For an infant of six months the deodorized tincture of opium should be given in half-drop doses, and for one of twelve months in drop doses. The interval between doses should be about three hours. Opium should never be prescribed in those advanced or grave cases in which there is marked drowsiness, or rolling of the head due to incipient

spurious hydrocephalus. Refraining from its use for such patients, and giving it in the doses and with the interval stated above, I have almost never had occasion to regret its employment, though prescribing it several times each day during the hot weather, in private and asylum practice. Drops are of very variable size when falling from the mouth of a bottle, and the dropper should always be employed, so that the drop may be as nearly as possible half a minim. The metric system insures more exactness, but we are not yet ready for it in this country. In certain severe cases the opiate may be given for a time every two hours.

The bismuth subnitrate is applicable to all cases, possessing no disadvantages, and producing no ill effects to limit its use. It may be given safely and with advantage in all stages of the malady as long as there is vomiting or diarrhoea. It is an efficient anti-emetic and antiseptic. It seems to act mainly locally, restraining the stools, increasing their consistence, and producing a soothing and curative effect upon the inflamed surface. It probably retards fermentative changes. It becomes a bismuth sulphide as dark as charcoal in the stomach, as I have observed at autopsies, and if taken in large doses, as it should be, it renders the stools dark. It sometimes taints the breath like that from onions or garlic, but I am informed that this is probably due to some impurity. It has long been in use in practice, but in insufficient and inadequate doses, for infants, until within recent years. An infant of one year should take it in doses of ten or twelve grains, and one of six months in six or eight grains.

Although we do not wish to produce alkalinity within the stomach, as the pepsin in its normal state is acid, and necessarily so for healthy digestion, yet in the "summer complaint" there is an undue development of acids, probably mainly the lactic. Therefore alkalies, as lime-water and the preparations of chalk, have been long used in this disease, and with apparent benefit, especially in the more acute cases. Alcohol, in moderate quantity, aids digestion, and is a heart stimulant. It is quickly eliminated from the system of the infant, and should be given at intervals of one to two hours to those who require it. It is given best in the form of Bourbon whiskey, brandy, or sherry, port, or Madeira wine. It is urgently demanded when, from failing heart action, hypostatic congestion of the lungs or brain is occurring or impending. In spurious hydrocephalus, which complicates many severe and protracted cases, its timely use aids materially in averting the danger. Many years ago Dr. Gooch, of London, was in the habit of employing in such cases of failing heart action the aromatic spirits of ammonia, and in five-drop doses sufficiently diluted in water it is a good stimulant and antacid.

Mild cases do not require special treatment designed to reduce temperature, as it is but moderately elevated. If the heat of head be moderately increased, a cloth wrung out of cold water should be constantly applied to it, and especially should the nurse be forbidden to cover the head except in the lightest and coolest manner, either in the house or out-door. In those severe cases known as choleric diarrhoea, or cholera infantum, more energetic anti-pyretic local treatment is required. This form of intestinal catarrh, which usually occurs quite abruptly, having been preceded either by a state of health, or a mild diarrhoea, and is characterized by frequent watery stools and rapid loss of flesh and strength, is attended by a temperature unusually high, namely from 104° to 106° , or even higher. Such great elevation of temperature involves danger, and the prompt use of measures designed to reduce it constitutes an important part of the treatment. A bladder containing ice may be applied to the

scalp, separated from it by one or two thicknesses of muslin, and the excessive heat of the hands and arms may be reduced by frequent sponging with cool water, and clysters of iced starch-water or mucilage are proper.

To these general observations in reference to the selection and use of therapeutic agents, it may be useful to the young practitioner to add certain formulæ, which, or the equivalents of which, experience has shown to be useful. To control the diarrhœa the following should be prescribed for an infant of one year: *R. Tinct. opii deodorat. gtt. xvj; Bismuth. subnitrat. ʒij; Syr. simplic. ʒss; Mistur. cretæ, ʒiss. Misce.* Shake bottle and give one teaspoonful every 3 hours. An infant of six months can take half the dose. A powder of bismuth, with the compound powder of chalk and opium, or with Dover's powder, has a similar effect.

Vomiting is often a very troublesome symptom, but the bismuth in the above prescription not unfrequently checks it. Its cause is probably not always the same. It is sometimes relieved by lime-water and brandy in milk when due to an excess of acid in the stomach, but the following prescription has given me more satisfaction than any other: *R. Vini ipecacuanhæ, gtt. ij; Bismuth. subnitrat. ʒij; Syr. zingiberis, Aq. menth. piperitæ, aa ʒj. Misce.* Shake bottle and give one teaspoonful whenever there is nausea.

Whenever there are tenesmus or streaks of blood in the stools, and in other cases which are exceptionally obstinate, the following will be found useful as a clyster: *R. Argent. nitratis, gr. j; Bismuth. subnitratis, ʒss; Mucil. acaciæ, Aquæ, aa ʒij. Misce.* The whole of it or a part may be given through a glass or gutta-percha syringe, and retained for half an hour or one hour by a compress. Towards the close of the hot weather and in the fall months, we are often asked to examine and treat protracted cases, that have been gradually losing flesh and strength since the diarrhœa began several weeks previously. The febrile movement is usually moderate, the appetite poor, the stools are not healthy looking, and probably less frequent than at first, though still too frequent. For such cases the following should be prescribed, which is both tonic and astringent: *Liq. ferri nitratis, gtt. xxvij; Tinc. colom bæ, ʒiij; Syr. simplic. ʒiij. Misce.* Give a teaspoonful every two or three hours to an infant of one year. The beef wine and iron of the shops, of late extensively employed in New York as a general tonic, also has a good effect, for the iron which it contains is mildly constipating. The dose of it is also one teaspoonful for an infant of one year.

Quinia has not seemed to me to act well in diarrhœal affections of infancy, apparently increasing the number of stools. It should never be used in acute cases. If ever admissible, it is in the chronic and wasted cases as a tonic, and not for its anti-pyretic effect.

The tincture of digitalis as a heart tonic, in cases of impending or established spurious hydrocephalus or hypostatic pneumonia, is a good adjuvant. It should be given in one-drop doses every third hour, while more active stimulation by the carbonate or aromatic spirits of ammonia is employed. Digitalis will also probably be found useful in any case attended by weak and rapid pulse, even when there are no symptoms of the complications alluded to.

I have said nothing in reference to the use of pepsin and lactopeptine, for I have never been able to satisfy myself to what extent, or whether they materially assisted the digestive function in this disease. Experiments show that the quantity of food which either one in ordinary medicinal quantity digests is very small.

Hospital Notes.

Ascites Successfully Treated by Tapping with Southey's Fine Trocar.

Henry S—, aged about thirty years, was admitted into the West London Hospital, under the care of Dr. THOROWGOOD, on November 17, 1879. The patient had been in the army, and while in the West Indies was laid up with an attack of "break-bone fever." He stated that he had never drunk much, his usual beverage in the West Indies being rum, and this on returning to England he exchanged for gin. He got on pretty well till 1876, when he was invalided from the army at Aldershot on account of bronchitis and heart disease. Gradually he noticed some swelling of his right foot, and then he found his abdomen larger than usual. During September, 1879, he was under the care of Dr. Fish as out-patient at the West London Hospital with well-marked ascites, and on the 17th of November he was sent into the hospital.

On admission his abdomen was distended and very tender, the circumferential measurement at umbilicus was thirty-seven inches, a few enlarged veins were seen on the surface, and the left lobe of the liver was tender and swollen. He had a mitral regurgitant murmur, and subcrepitant râles were audible at the lung bases. He had never vomited blood, or passed any by the bowels; had complained of cough, burning acid risings, and a good deal of soreness and pain at the epigastrium.

On Nov. 21, pulse 84, urine four pints, clear, free from albumen. Ordered five grains of compound ipecacuanha powder and three grains of mercury-and-chalk powder every night.

The remedies not making any reduction in his ascites, on Dec. 2, Mr. Blamey placed him on his right side and introduced one of Dr. Southey's fine trocars¹ in the mesial line, two inches below the umbilicus. The instrument was retained for five hours, during which time eight quarts of clear, greenish-looking fluid drained away. In the evening the temperature was 100°, and the man complained of much pain over the abdomen. Pulse rapid and irregular. To continue the powders as before.

The patient gradually improved, and on Jan. 8, 1880, was allowed to leave the hospital, feeling himself quite well. The abdominal tenderness had subsided; the belly was flat and resonant at the lowest part of each flank, and now measured 29.5 inches at umbilicus. The tongue was clean; appetite good, and liver dulness normal. For a week he had taken nitro-hydrochloric acid, with taraxacum and infusion of gentian.

The point of interest in this case seemed to be the value of gradual evacuation of the ascitic fluid. The marked abdominal tenderness rendered it advisable to give small doses of Dover's powder before the operation to keep the intestines quiet. The valvular disease of the heart was another reason for taking away the fluid very slowly.

The increased temperature after the operation, the pain and tenderness complained of by the patient for several days, and the quick and irregular pulse, all showed that the precautions were not likely to have been taken needlessly. The fine trocar and tube had previously proved beneficial in the case of a man in the hospital with enormously swelled legs, on whom Mr. Blamey operated, and the case of ascites seemed quite a fitting one to treat on the same principle. Dr. Southey had very kindly explained every detail in the management of the trocar and tube, and the result was as satisfactory as could be desired.—*Lancet*, March 6, 1880.

¹ See American Journal of the Med. Sciences, July, 1877, p. 254.

MONTHLY ABSTRACT.

Anatomy and Physiology.

Anomalies of the Twelfth Rib, and their Bearing on Nephrotomy.

Dr. M. HOLL reports in Langenbeck's *Archiv für Chirurgie*, Band xxv., Heft 1, an interesting case in which nephrotomy was attended with disastrous results, in consequence of an abnormal condition of the twelfth rib, which had been overlooked in the early stage of the operation. The patient, who was under the care of Professor von Dumreicher, was a man, aged 33, who had suffered for many years from calculous disease of the left kidney, resulting in pyonephrosis, perinephritic suppuration, and, finally, cystic disorganization of the organ. In consequence of the severity of the symptoms at the ultimate stage of the disease, and as the right kidney was believed to be healthy, it was decided to have recourse to nephrotomy. The operation was undertaken on August 6, 1877, and the usual vertical incision made in the left lumbar region, commencing about two inches below what was supposed to be the twelfth rib. The diseased kidney was found to be inclosed in a thick covering of rough cicatricial tissue, and almost the whole of the organ had been converted into a thick-walled sac containing a purulent fluid. In consequence of some difficulty in enucleating the superior portion of the kidney, the incision was extended upwards. Whilst the dense cicatricial tissue was being divided near the lower margin of the rib, a whizzing sound was heard, and the patient immediately became cyanosed. It was evident that the left pleural cavity had been opened, and that pneumothorax had resulted. On examination of the deep portions of the lumbar incision, it was found that the last rib felt before the commencement of the operation, and used as a guide, was the eleventh and not the twelfth, which could now be felt very small and in a rudimentary state. A further attempt was made to remove the kidney, but, in consequence of collapse of the patient through dyspnoea and much hemorrhage, the operation was not completed. The patient died on the following day. At the necropsy, an opening through which the little finger could be passed was found at the lower part of the pleural cavity. The left lung was collapsed, and surrounded by a considerable quantity of sero-purulent exudation. The twelfth rib was small and short ($3\frac{1}{2}$ centimetres in length), and its outer extremity did not extend to the inner margin of the lumbar incision. The upper end of this incision had exposed the lower margin of the eleventh rib. Professor Simon, first of modern surgeons to advocate and to perform nephrotomy, pointed out that the twelfth rib was one of the most important guides in this operation, but failed to mention the fact that this bone not unfrequently exists in a rudimentary condition or is altogether absent. As the twelfth rib is intimately connected with the pleura, and is the only safeguard against injury to this membrane in the course of the operation, it is evident that an abnormal condition of this bone may seriously influence nephrotomy, and not only render the operation very difficult, but also cause the death of the patient. Dr. Holl, struck with the importance of the part played by the twelfth rib in the operation of removing the kidney, has made a series of investigations on sixty human skeletons, with the object of determining the frequency and variety of abnormalities of this bone, and also the relations of the diaphragm and pleura in cases where abnormality of the rib

exists. The twelfth rib he found almost always shorter than the eleventh, the average lengths being three inches and a quarter and four inches and a third. In forty-four instances, the twelfth had not more than half the length of the eleventh rib. In twenty bodies out of thirty-six the twelfth rib could not be felt on superficial examination and before dissection, the eleventh rib being apparently the last. In the total number of sixty skeletons, the twelfth rib was altogether absent six times. In abnormal conditions of the twelfth rib, the eleventh rib usually remains normal, save that its free extremity is somewhat depressed, so that the space between the tenth and eleventh ribs is widened. Shortening of the twelfth rib may occur on both sides or on one side only: when unilateral, it occurs more frequently on the right side; it occurs more frequently in males than in females. No constant coexistence was found of any abnormality of the vertebrae, as to arrangement or number, with absence or abnormal size of the twelfth rib. If this rib be wanting, the corresponding vertebra has no costal articular facet, and presents a connecting link between the dorsal and lumbar vertebrae. In cases of abnormality of the last rib, the posterior attachments of the diaphragm usually occupy their normal position. The pleura, therefore, being no longer protected by the twelfth rib, and passing down below the eleventh rib, is very liable to be wounded during nephrotomy, unless the abnormal condition have been previously recognized and care taken to avoid such an accident. The surgeon, before commencing the operation, should count the ribs, and, if he find the twelfth very short or absent, ought not to carry his knife over a line drawn horizontally outwards from the lower margin of the spinous process of the twelfth dorsal vertebra. The twelfth rib, Dr. Holl states, when short, has no value as a guide in nephrotomy, and ought not to be regarded as such, save when its free extremity extends for some distance beyond the outer margin of the sacro-lumbalis muscle. Dr. Holl agrees in the opinion that was held by Professor Simon as to the danger of excising the twelfth rib in nephrotomy, and disapproves of such proceeding on account of the great risk involved of opening the pleural cavity. —*London Med. Record*, April 15, 1880.

Materia Medica and Therapeutics.

On Antiseptic Dressings.

The following extract, from Professor BARDELEBEN'S *Text-Book of Surgery*, is published in the February number of the *Medicinisch-Chirurgische Rundschau*. The most convenient and efficacious of antiseptic dressings are those containing carbolic acid. Thymol is a less convenient agent, merely on account of the difficulty in obtaining a sufficiently strong solution. Both agents are very volatile. Dressings, therefore, in which either is mixed with lard or resin, soon become useless. Such dressings should either be used when quite fresh, or be closely packed in some air-tight receptacle. Moist dressings of thymol and carbolic acid have the advantage that they may be readily provided and without technical assistance, but they must be renewed from time to time. If jute be used at the same time, the moistening of the dressings with carbolic acid or thymol need not be repeated more frequently than once in twelve hours. Salicylic acid is less soluble and also less potent as an antiseptic than the above-mentioned agents; but, on the other hand, it is not at all volatile, and dressings impregnated with it preserve their efficacy for a long time. The small crystals,

however, may be readily detached from dry dressings, and thus the antiseptic working of the application is impaired and a dust diffused around the patient, which is very irritating to the mucous membrane of the air-passages and provocative of coughing and sneezing. This acid has this important advantage over carbolic acid and thymol, that it is much less irritating in its action on the skin and on open surfaces. Not the hand of the surgeon only, but also the skin of the patient, must suffer from the local action of carbolic acid. The most irritating of dressings is Lister's gauze, on account not merely of its carbolic acid, but also of the paraffin that it contains in large amount. Not only pain and redness but also a pustular eruption and superficial gangrene of the skin, may occur during the use of Lister's dressings, especially if the bandaging be too firmly applied. Carbolic acid, as C. Hueter remarks, acts not only as an irritating but also as a paralyzing agent, particularly on the small vessels. Hence the active bleeding from all fresh wounds to which a solution of carbolic acid is applied in a stream or spray. In solutions of more than three per cent., carbolic acid acts as a caustic. Whether the burning pains caused by the prolonged application to the skin of carbolic acid, even in weak solutions, be due to the direct action of this agent on the nerves or to dilatation of the small vessels and consequent stasis of blood, cannot be made out. Thymol has no advantage over carbolic acid in this respect, for, even in solutions of one per thousand, it excites severe burning pains when applied to the skin. It does not, however, cause any paralysis of the bloodvessels. With the use of carbolic acid, the burning pains give way to anaesthesia; with the use of thymol, this change does not occur. Boracic acid dressings, which may be used whenever carbolic acid or thymol cannot be conveniently or safely applied, have this advantage, that they may be kept for a long time without being deprived of their efficacy, boracic acid being non-volatile. Chloride of zinc dressings should not be applied directly to a wounded surface, as this salt acts as a caustic. For the same reason, any wound-secretion absorbed by chloride of zinc dressing should not be allowed to come into contact again with the surface of the wound, or to accumulate in its vicinity. If these precautions be taken, chloride of zinc will be found, in combination with jute, a very useful antiseptic dressing. Of much greater importance than the local irritation that may be produced through the application of antiseptic dressings, is the question of the danger that may arise through the absorption of any of such agents. The only agent that need be considered in this respect is carbolic acid, for this alone of the above-mentioned antiseptics can be absorbed by the organism from the dressings in such quantities as to excite serious disturbances. Carbolic acid is decidedly a poison. That it is very frequently absorbed both from moist and from dry dressings, may be proved by the frequent occurrence of a characteristic and easily recognized change in the urine. The colour of this exuded fluid is at first olive-green, subsequently, after some exposure to the air, dark brown, and finally black; the sulphates disappear and are converted into sulpho-carbolates. But notwithstanding this alarming symptom, the general health of the patient, if not otherwise affected, usually remains good. In some instances, however, the appetite fails, the patient feels dull and is apathetic, and there is nausea and occasional vomiting. The intensity of these disturbances stands in no close relation to the intensity of the urinary staining; with the urine very dark in colour, the patient may still feel quite well. It is not imperatively necessary to discontinue the use of carbolic acid dressings when the urine becomes stained; but, so soon as the above-mentioned general symptoms are manifested, some other antiseptic dressing should be substituted.—*London Med. Record*, April 15, 1880

Oxalate of Cerium as a Cough Remedy.

At a recent meeting of the New York Therapeutical Society (*Med. Record*, May 1, 1880), Dr. ANDREW H. SMITH presented the following as the conclusions of the Committee on Restoratives as to the value of oxalate of cerium as a cough remedy:—

1. Oxalate of cerium could be safely administered in doses of ten grains, three times a day, for many days in succession.
2. The only unpleasant symptom, when so used, was slight dryness of the mouth that appeared after several days.
3. It was probably the most efficient when administered dry upon the tongue.
4. Its effects were not produced until two or three days after its use was begun, and lasted for two or three days after the remedy was discontinued.
5. It was most efficacious in the treatment of chronic cough, and the initial dose should be five grains.
6. In the majority of cases it had not proved an efficient cough medicine for any considerable length of time, but could be regarded as a valuable agent to be employed in alternation with other remedies.
7. It did not disturb the stomach; on the contrary, it relieved nausea and improved digestion.
8. Different preparations upon the market were not equal in value; and when success was not obtained by one, another should be substituted.

Effects of Intravenous Injection of Chloral, Chloroform, and Ether upon the Circulation.

M. ARLOING (*Archives Gén. de Méd.*, Oct. 1879) recently read a paper before the Académie des Sciences of Paris as to the comparative effects upon the circulation of intravenous injections of chloral, chloroform, and ether. The author injected into the veins furthest removed from the heart solutions of chloral (.5 per cent.), and solutions of chloroform and ether (.2 per cent.). He then found that the heart beat was greatly strengthened by the chloroform, and that chloral and ether caused a fall in the pressure of the right ventricle, whilst chloroform increased this pressure. Again, chloroform and ether increased the force of the systole, whilst chloral diminished it. From these observations the conclusion was drawn that the pulmonary circulation is rendered more active by chloral and ether, whilst it is retarded by chloroform. It was also noticed that the following changes occurred in the peripheral circulation: (1) The flow of blood in the capillaries, which was slightly slowed at the commencement of chloralization and etherization, was much accelerated towards the end of the anæsthesia. (2) The flow, after undergoing a temporary increase in rate, diminished at the beginning of the chloroform narcosis; it afterwards, however, increased gradually, though it did not regain its normal rapidity. It was also found that chloroform produced anæmia of the cerebral vessels, whilst ether and chloral caused hyperæmia of the brain.—*Practitioner*, May, 1880.

Cutaneous Eruptions caused by Hydrate of Chloral.

Dr. MARTINET (*Thèse de Paris*, 1879) has arrived at the following conclusions, which are interesting in so far as they bear upon the question of eruptions caused by remedies. (1) The ingestion of chloral produces an exanthematous eruption in a certain number of individuals, which may be called chloralic erythema. In some cases too urticaria and purpura have been observed after its

administration. (2) The erythema appears on the face, neck, abdomen, over large joints, upon the extreme surfaces, and upon the back of the hands and feet, etc. It occurs after eating, and after drinking alcoholic beverages. There is frequently no fever, and the duration of the eruption is very short. (3) The eruption is often accompanied by dyspnoea and intense palpitation. (4) The phenomena are only observed in persons who are predisposed to it. (5) It appears to be due to a paralysis of the vaso-motor centres in the same way as in the accompanying dyspnoea and palpitations. Eruptions due to chloral have been observed by Schüle in Germany, and by Creighton Brown and Winter Fisher in this country. French writers scarcely allude to them, with the exception M. Mayor, who has brought forward an interesting communication upon the subject. In nearly all the cases published by M. Mayor and M. Martinet it was found that the eruption reappeared on renewing the dose of chloral. The amount of chloral required to produce the eruption does not appear to be of any great importance from the point of view here adopted. The explanation of its causes as given by M. Martinet, although probable, yet remains to be proved.—*Practitioner*, March, 1880.

Medicine.

The Neurotic Theory of Gout.

In the number of *Brain* for April, 1880, Dr. DYCE DUCKWORTH, Assistant Physician to St. Bartholomew's Hospital, enters a plea for the neurotic theory of gout which is based upon the following points:—

1. I contend that the diseased conditions which are recognized as of unequivocal gouty nature, are primarily dependent upon a functional disorder of a definite tract of the nervous system, and that, thus, gout is a primary neurosis.

2. That there is much in the nature of the malady itself, and much evidence forthcoming by way of analogy, to warrant the conjecture that the portion of the nervous system specially involved is situate in the part of the medulla oblongata, where, possibly, may be placed a trophic centre for the joints.

3. That the gouty neurosis may, like others, be acquired, intensified, and transmitted, also that it may be modified variously, and commingled with other neuroses; that it may suffer metamorphic transformations, or be altogether repressed.

4. That this diathetic neurosis imposes its type upon the affected individual in definite nutritional modes, affecting the assimilating and excreting powers, exhibiting marked peculiarities in nervous impressibility, and determining, in more or less degree, a physiognomy of the gouty.

5. That a large part of the phenomena known as gouty, are due to perverted relations of uric acid and sodium salts in the economy, resulting from the morbid peculiarities mentioned under the last head. Thus, there is excess of urate of soda in the blood before, and during, gouty explosive manifestation, and there is determination (by nervous influence, in all probability) either of this salt to the affected part (Garrod),¹ or there is a too free formation of it at these inflammatory points, whence it is deposited locally, and also set free into the circulation (Ord).

The renal excretory power for uric acid appears to be temporarily inhibited as

¹ Vide "Lecture on Pathology and Therapeutics." (London, 1867: p. 137.) H. Bence Jones, M.D., F.R.S.

part of the process of gouty paroxysm. This measure of renal inadequacy would appear to prevail in varying degree as a part of the specific neurosial disorder. In chronic gout, when structural disease has occurred, either tubal, with deposition of urate of soda, or interstitial, with shrinking of the organs, the renal inadequacy may admit of more mechanical explanation.

6. That in primary, or inherited, gout, the toxæmia is dependent on the gouty neurosis; is the outcome, in whatever degree, of it, and is therefore a secondary manifestation.

7. That, in what I term Secondary, or acquired, gout, the toxæmia is directly induced by such habits as overload the digestive and excretory organs, and constantly prevent complete secondary disposal of nutritional elements of food; that if, together with such toxæmia, distinctly depressing and exhausting agencies, affecting the nervous system, come into operation, the special neurotic manifestations of the gouty diathesis will occur, and be impressed more or less deeply upon the individual and his offspring.

8. That this theory of gout, better than any other, correlates all the known factors concerned in the production of the varied symptoms of the malady; and while it displaces its humoral pathology from the pre-eminence it has so long occupied, it takes full cognizance of it, and seeks to place it in a clearer relation to the phenomena of the disease.

9. That if it be desirable to refer various maladies to their distinct place in pathology, without reference merely to their chemistry, histology, or neurology, the affection known as gout may perhaps most correctly be relegated, along with some others, to a class of diseases which may be termed neuro-humoral.

10. An argument is adduced from the *juvantia* afforded by colchicum, in favour of the theory which has been set forth.

Persistent Priapism, not connected with Lesion of the Central Nervous System.

Dr. GEORGE L. PEABODY, Medical Registrar and Pathologist to the New York Hospital, reports (*New York Med. Journal*, May, 1880) an interesting case of long-continued priapism not dependent upon injury to the spinal cord, and reviews the other cases of similar character which have been from time to time recorded in medical literature. He finds the following to be the most important facts with regard to this form of priapism:—

1. It is to be regarded as an occasional symptom of leucocythæmia.
2. It may come on without any assignable cause in a patient apparently in perfect health, though it usually attacks anæmic persons. It sometimes follows sexual intercourse, though this is to be regarded as exceptional.
3. It may last from a few days to two months, and has lasted a longer time, though rarely.
4. It is extremely painful, causing insomnia, nervous exhaustion, and general physical prostration.
5. It has occasionally yielded to profuse blood-letting. This procedure is not to be recommended, except in robust subjects. Free incisions into the corpora cavernosa have occasionally caused its subsidence, but they are to be regarded as unsafe on account of the prolonged suppuration which has followed them. Medical treatment has proved entirely useless as far as the cure of the condition is concerned. Local applications containing camphor and other soothing ingredients have diminished the pain.
6. The prognosis is not good, both on account of the cachexia with which it is commonly accompanied, and on account of the fact that it is frequently followed by impotence.
7. The corpus spongiosum is usually not affected.

A valuable bibliography is appended.

Diabetes and Sepsis.

In this paper (*Deutsche Medicin. Wochenschrift*, Jan. 3 and 10, 1880), ROSER calls special attention to the occurrence of gangrenous or ulcerative processes in patients suffering from diabetes. As a rule, in cases of gangrene occurring without any definite cause, the tendency is to attribute it to some septic agency. Roser, however, points out that, in these cases, diabetes is often present, and, where this is the case, he states that a cure may be obtained by attention to diet, etc., without any special antiseptic measures. In support of this view, he cites a case from his own practice of progressive gangrenous inflammation of the foot cured by antidiabetic diet; other cases occurring in his own practice, in that of Kåby, Marchal, and others. Reference is also made to cases of sudden death, which often occur in diabetic cases, and which may happen after even slight operations. He confirms Marchal's statement that, "in cases of obstinate furuncular eruption of carbuncle, diffuse phlegmonous inflammation, gangrene, etc., the urine should always be examined for sugar."—*London Med. Record*, April 15, 1880.

An Undescribed Eye-Symptom in Glycosuria.

ALCON calls attention (*El Siglo Medico*, Jan. 1880, No. 1361) to a case of diabetes in which he observed a symptom hitherto undescribed, namely, a diminution in the refractive power of the eye. The patient was a woman, aged 61, of healthy antecedents, in whom symptoms of glycosuria became developed after an injury. Simultaneously, sight became impaired, and glasses that had hitherto sufficed for reading were now found to be too weak. There was a manifest hypermetropia of 1.25 D, and vision was reduced to one-half. At this period, the amount of sugar passed daily amounted to 229.04 grammes. At successive visits the amount of sugar was found to be steadily decreasing, and, *pari passu*, the hypermetropia also. Finally, five months after the first examination, it was found that the eyes were once more emmetropic, while every particle of sugar had disappeared from the urine. The author explains the symptoms by an alteration in the index of refraction of the vitreous humour, due to a change in its chemical composition. The vitreous body offers a concave surface to incident rays, and, consequently, its refraction is the exact reverse of that of the cornea and crystalline; therefore, any increase in its refractive power will result in a diminution of the refractive force of the eye as a whole.—*London Med. Record*, April 15, 1880.

On Some Appearances, probably of Parasites, in the Voluntary Muscles of Enteric Fever.

At a late meeting of the Pathological Society of London (*British Med. Journal*, April 24, 1880), Dr. Buchanan read, on behalf of Mr. W. H. POWER, a paper on this subject. Mr. Power's attention was first called to it by the discovery of hæmatoid worms closely resembling trichinæ in the body of a boy who had died on board the training-ship *Cornwall*, of a disease supposed to be typhoid fever, that had affected many of the boys in the ship. Investigation rendered it nearly certain that in all the cases the disease had been parasitic in its nature, rather than enteric. The parasites resembled trichinæ in size, but they were not encysted, and they were more transparent than trichinæ generally were. This might be due to the rapid course of the disease in this case, and to the fact that the examination was not made until two months after death. In order to follow up the matter, Mr. Power made examinations of the voluntary muscles in two cases of undoubted typhoid fever. The first case was a young man, a patient in

St. Thomas's Hospital under the care of Dr. Cory, admitted for typhoid fever, who had died of perforation on the twenty-third day of the disease, the bowel being found *post mortem* to present well-marked typhoid ulceration. In the pectoral muscle were bodies resembling parasitic worms. They were very numerous, and when first seen were apparently living. In length and in breadth they were about one-fourth the size of the *trichina spiralis*, and there was an interior canal which appeared to be covered at one part by some internal tissue or organ. Similar bodies were found in the muscles of a boy who died in Greenwich Hospital from peritonitis, at an early stage of unquestionable typhoid fever. In neither case were all the muscles affected, the diaphragm being in both free from the worm-like bodies. Further examination led to the discovery of smaller bodies, possibly having some relation to the larger bodies, but much more numerous than the latter. They were, however, not easily seen, a very slight interference with the slide being sufficient to remove them from view. The larger parasite-like bodies were more numerous in portions of the muscle which had undergone decomposition; but this was not true of the smaller bodies. It was doubtful whether the increase in the number of the larger bodies was apparent only, or whether it depended upon actual growth or multiplication. The author of the papers did not profess to do more than record the observed facts, with a view to encouraging investigations on the part of other pathologists.

Syphilis as a Cause of Tabes Dorsalis.

ERB has previously drawn attention to the frequency with which a history of syphilis may be obtained in cases of tabes (*Deutsches Archiv für Klin. Med.*, Band xxiv). He now reports (*Irrenfreund*, Jan. 1880), from a series of fresh observations, that out of 33 typical cases, he only found 4 without previous syphilitic infection. Of the other 29, 24 had had secondary symptoms, and the remaining 5 a primary sore only. In order to show that this history is special to tabes, the author carefully examined 85 male patients over 25 years of age, suffering from various other nervous disorders, for previous syphilis or chancre. Of these, 71 had never had the disorder, leaving only 14 who had. The proportions are these: of the 33 cases of tabes, 88 per cent., and, of the 85 cases of other nervous diseases, 14 per cent. only had had syphilis. The time at which the tabes supervened is thus given: within 4 years of infection, 5 cases; from 4 to 10 years, 18; from 11 to 12 years, 3; many years later, 3. In most of the cases it was observed that the syphilitic symptoms had not been of a severe nature. The author states that symptoms of syphilitic disease of the brain should be carefully sought for in all cases of tabes. He regards the question whether syphilis is merely a predisposing, or a direct cause, as still open, but inclines to the latter view, and considers that two classes of cases should be recognized, the specific and the non-specific. In a number of the syphilitic cases, active antisyphilitic treatment had been followed by improvement or arrest of the disease; prognosis must, however, be most guarded, for syphilitic scleroses are always highly intractable, and there is probably an actual lesion of nerve-tissue which is known to have little or no power of repair. In a discussion which followed the reading of the author's paper, Dr. Mayer stated that, among 29 cases of tabes, he had only found three without any history of syphilis.—*London Med. Record*, April 15, 1880.

Epilepsy in Syphilitic Patients.

Dr. C. PELLIZZARI describes three cases in *Lo Sperimentale* for 1879 (abstract in *Wiener Med. Wochenschrift*, No. 13, 1880). In the first case, the subject

was a man aged 38, who sixteen years previously had had cutaneous syphilis, of which the scars were still present. The left half of the face and the left upper limb had been the seat of convulsive movements for about a year, and defecation and micturition occurred involuntarily. Soon after his admission, the left leg was also observed to be affected, and later the whole body. Death was preceded by a considerable rise of temperature. At the necropsy, the cerebral lobes and the dura mater were found to be adherent, and there was a considerable development of connective tissue in the cortical substance of the brain. In the second case, the patient was eight years old, the child of a syphilitic mother. It was said to have suffered only a short time from unilateral convulsions. No direct cause could be discovered beyond thickening of the pia mater of the right paracentral lobe. The third patient, a man aged 36, had been syphilitic sixteen years and epileptic two years. At first he had only headache, afterwards stuttering and convulsions, and then aphasia. At the same time with the headache, a sore appeared on the lower lip. This healed under mercury; the treatment, however, had no effect on the convulsions, which affected the right side; and his memory became impaired while he was taking mercury. Consciousness was still unimpaired a short time before death, even when the convulsions affected both sides. Death was preceded by a rise of temperature. There was softening of the left lobe of the brain as far as the corpus striatum; the meninges in this part were much thickened and adherent.—*British Med. Journal*, April 24, 1880.

The Treatment of Epilepsy.

Dr. W. R. GOWERS concluded his recent course of Gulstonian Lectures before the Royal College of Physicians with the following interesting remarks on the treatment of epilepsy.

The treatment of epilepsy is a subject on which numerical analysis gives little help. A large number of cases are under observation too short a time to enable the effect of remedies to be fairly estimated; and of the cases in which benefit is derived, we have no means of ascertaining how many relapse when treatment is discontinued. My notes of the result of treatment in this series of cases extend to 562 cases only. In the remainder, either the period of observation was too short for just conclusions to be drawn, or, in the press of out-patient work, the influence of remedies was not noted with sufficient precision. The effect of treatment is more likely to be recorded when it is distinct and considerable than when it is slight. Hence the following figures have no relative value. Of the 562 cases, the attacks ceased while the treatment was maintained in 241; doubtless many of these relapsed when treatment was discontinued, but in a few I have been able to ascertain that the patients remained free from fits even for years after they ceased to take medicine. In 266 cases improvement short of arrest was obtained; the fits being reduced in many to $\frac{1}{10}$, $\frac{1}{15}$, $\frac{1}{20}$, and even $\frac{1}{25}$ of their former frequency. In 55 cases little improvement was obtained by any method of treatment.

Time forbids me to enter at any length on the details of treatment, and I can do little more than mention the remedies which in this series of cases were of most distinct service. The subject of possible modes of action it is better to leave almost untouched. It may be doubted whether a rational therapeutics of epilepsy is yet possible. At any rate, up to the present time remedies used empirically have been of most service.

Although the results show that we must not only rely exclusively upon bromides in our treatment of epilepsy, they show also, as might be expected, that on these our chief trust must still be placed. Of the arrests of fits, 66 per cent.,

and of the improvements short of arrest, 62 per cent., were due to bromides given alone. Of the three alkaline salts of bromine, that of potassium deserves, I think, as it has popularly received, the first place. I have made a careful comparison between the salt of sodium and potassium in a series of about fifty cases, substituting the one for the other. In a few cases the sodic salt appeared to do better; in the great majority it was distinctly less useful. Bromide of ammonium possesses slightly more power than bromide of potassium, but this is not greater than the larger quantity of bromine which it contains will account for.

The period after its administration at which the maximum effect of a dose of bromide is obtained varies, I believe, with the dose. The larger the dose the longer is the maximum effect deferred; the smaller the dose the sooner does it occur, and the sooner is its action over. When small doses are employed in cases in which attacks occur at regular times, they should not therefore be given more than two or three hours before the attack is expected. This is contrary to some opinions which have been expressed, but I have several times known attacks arrested when a dose was given some two or three hours before the fit was expected, which were not arrested when the same dose was given twelve hours earlier.

The effect of bromide upon fits appears to be for a time cumulative, just as is, indeed, its action in causing bromism. Attacks may continue under its administration for a time, and yet ultimately cease without any increase in the dose. On the other hand, still later, tolerance, or rather indifference, may be established, and attacks which have been for a time arrested may ultimately recur.

Drugs which increase reflex action, such as strychnia, are now believed to do so by lessening the resistance in the nerve-centres involved. Bromide diminishes reflex action, antagonizes strychnia, and it is probable that it does so by increasing the resistance in the centres. If the view above expressed be correct, that the morbid state in epilepsy is essentially an instability of the resistance in the cells, it is also probable that bromide acts by increasing the stability of this resistance.

Bromide is commonly administered in a continuous course, in such moderate doses as will just suffice to keep the fits in check. Given thus it needs to be given frequently. I have more than once observed that a daily quantity which given in two doses did not quite arrest the fits, arrested them completely when given in three doses. If, therefore, the greater convenience of infrequent doses, one or two daily, is preferred, a somewhat larger quantity needs to be given.

When bromide is thus given continuously, it has not seemed to me desirable to increase the daily dose beyond a drachm or a drachm and a half. If this does not arrest the fits, I have very rarely found that larger doses succeed so well as the combination of bromide with other drugs. But it is, I think, open to question whether this method of administration, using doses only just sufficient to arrest the fits, is the wisest in all cases. If bromide cures epilepsy, as without doubt it does sometimes, it must be by effecting a nutritive change in the nerve-cells corresponding to its action, whereby they are rendered permanently more stable. That it, or any other drug, does good in epilepsy by influencing the vascular state of the brain, appears to me without even probable proof. Even if such were its action, we are only driven back to a similar influence in increasing the stability of the cells of the vaso-motor centre. There are, I think, many grounds for the belief that the change in the nutrition of the cells may be produced more effectually by subjecting the patient *for a time* to the full influence of bromide, giving doses much larger than are needed to arrest the fits, in the hope of producing more readily a permanent nutritive change. In giving bromide thus I have preferred large doses at intervals of two or three days, gradually in reasing the dose until it is as large as can be well borne, and then dimin-

ishing it. The largest single doses which I have given in this way have been doses of one ounce. This in some patients produces slight stupor, sometimes reaching its maximum on the second day after the dose. In other cases it produces very little disturbance beyond headache. From the marked differences which patients present in their tolerance, it is not well to begin this method of treatment with a larger dose than four drachms.

The value of the various combinations of bromide with other drugs was tested, as far as possible, on a uniform plan. First, bromide was given alone for several months, and then an additional drug was added to the same dose of bromide, and the result watched for several months longer. Of the various combinations which are in common use, those with digitalis and belladonna unquestionably deserve, as they have commonly received, the first place. Digitalis is one of the oldest remedies for epilepsy. It was recommended by Parkinson two hundred years ago, and has been perhaps for a still longer time a popular remedy for this disease in certain rural districts in the west of England. I have met with no case in which, given alone, digitalis arrested the fits for more than a few months, but in several cases it effected very distinct improvement. The combination of digitalis and bromide, however, was distinctly more useful than bromide only, in no less than sixty-three cases. In more than half of these, thirty-seven cases, the attacks ceased under its use, although they had continued under bromide alone. In the cases in which cardiac disturbance was associated, the combination was almost always superior to bromide alone; but its use is not confined to these cases. Many cases of nocturnal and other forms of epilepsy yielded to the combination, although the attacks had continued under bromide, and this when there was no evidence of cardiac disease. I know of one patient with nocturnal epilepsy who, for two years, under this combination, has not had a single fit, although the attacks occurred every few weeks on bromide only.

In rare cases belladonna alone will arrest attacks. I have met with only one case in which attacks, which continued on bromide, ceased entirely when belladonna was substituted, and this was a case with hystero-epileptic symptoms. The combination of bromide and belladonna, however, was distinctly better than bromide alone in 35 cases, and in 15 of these arrest of the fits was thus obtained.

Indian hemp was first employed in epilepsy by Dr. Reynolds, and is sometimes of clear value. In one case the attacks were invariably arrested for many months by its use, recurring only when the patient ceased attendance, but twice on his resuming attendance the drug instantly arrested the attacks. When bromide was substituted for the Indian hemp, the attacks at once recurred. Combined with bromide it is also sometimes useful, and seems to exercise most influence over attacks in cases in which there is persistent headache. The same fact has seemed true of the combination with gelseminum, which is occasionally of marked service.

The use of opium in epilepsy has long been advocated by Dr. Radcliffe, and in some cases it is certainly effective. The combination of bromide and morphia I have rarely found to present special advantages. In the status epilepticus in which attacks occur with great frequency and severity, and where bromide, even in large doses, was useless, I have found small hypodermic injections of morphia of great service.

The combination of bromide with aconite and hydrocyanic acid I have also tried, and found in some cases slightly better than bromide only. The addition of iodide to bromide has been lately said to increase its effect. Occasionally this is true, and in four cases of the series the combination was distinctly better than bromide only, but in many other cases it was ineffective. Even in the cases the subjects of inherited syphilis it has not appeared of special value.

Zinc unquestionably deserves some of the repute it has enjoyed for more than a hundred years as an anti-epileptic. Of the cases of this series in which it was employed it was distinctly useful in ten, but in only three did the attacks cease. In three other cases attacks which continued under bromide ceased under bromide and zinc, and in a fourth they ceased under zinc, digitalis, and bromide. The oxide of zinc was the form commonly employed. Its nauseating influence constitutes a serious drawback to its use, as toleration is difficult to establish, and I have rarely succeeded in giving more than twenty grains a day. Bromide of zinc has seemed of small value, and is borne badly. The addition of arsenic to bromide in no case produced any marked effect on the attacks. It was used in a large number of cases on account of the readiness with which, it was found, the bromide rash could be prevented by its use.

Bromide of camphor, highly praised by Bourneville, was tried in a considerable number of cases, but without any good results. Turpentine has been recommended by Dr. Radcliffe, and I have seen it produce very striking benefit, but only in cases of hystero-epilepsy.

The use of iron in epilepsy has been discountenanced by high authorities, on grounds which are not altogether beyond question. In rare cases it increased the frequency of attacks; in the majority of cases in which it was used it was borne without any ill result; in many the addition of iron to bromide was attended with a marked and permanent improvement, and in some cases iron alone arrested the fits. The series includes 4 cases which ceased under iron only, and 8 others in which iron alone was distinctly better than bromide, and 19 cases in which the addition of iron to bromide exercised a marked influence. In no less than 11 cases attacks which persisted on bromide, ceased on the addition of iron, and remained absent as long as the treatment was continued.

In several inveterate cases of epilepsy in which bromide had no effect, I have tried borax. In some cases it did no good, but in 12 its value was most distinct. I may mention one or two. In one, fits which had continued on bromide and on zinc ceased entirely on borax for three months, and then only recurred when the medicine was discontinued. In another case the fits continued, about one weekly, during three months' treatment on bromide and on belladonna. Borax was then substituted, the fits at once ceased, and for five months the patient had not a single fit; then he had one in each of the two following months; the dose of borax was increased, and up to the present time, eight months later, no other attack has occurred. In a third case, one or two attacks occurred once a fortnight on bromide. Borax was substituted, and for five months the patient had not a single fit. The doses given have been ten or fifteen grains twice or three times a day. It produces in some patients gastro-intestinal disturbance, and rarely, a form of dysenteric diarrhoea. By others it is well borne, and one of my patients has taken forty-five grains a day for twelve months without the slightest inconvenience, and says that no medicine has ever done him so much good. In cases in which bromide fails, borax certainly deserves a trial.

The use of *cocculus indicus* in epilepsy, recommended by Dujardin-Beaumetz, has lately attracted attention in consequence of the recommendation of Planat. I have tried the alkaloid picrotoxine in a few instances, but in only one case has it appeared to do good. My own experience of its use has, however, been small, and I am very much indebted to my colleague, Dr. Ramskill, for permitting me to mention some interesting results which he has obtained by the hypodermic injection of picrotoxine. His experience of its effect on the fits when given through the skin is nearly the same as my own of its employment by the mouth. In seven cases in which it was injected, in daily doses of from one to four milligrammes, no beneficial result was obtained; in most cases, indeed, the attacks

were rather more frequent and severe. Of course, we are not justified in assuming that the effects of picrotoxine and of the *cocculus indicus* itself are identical. A very interesting fact has, however, been ascertained by Dr. Ramskill—viz., that picrotoxine in larger doses of from fifteen to eighteen milligrammes will almost invariably produce a fit in twenty or thirty minutes. In one patient, for instance (according to the notes of Mr. Broster, who carried out the experiments), the dose was daily increased, and when more than five milligrammes were injected, a sensation of giddiness followed, similar to that with which the attacks commenced. The same effect followed larger injections, and when the dose reached eighteen milligrammes a severe attack occurred thirty minutes later, and an attack always followed the injection of this dose. In another patient a similar progressive increase of the dose was followed by giddiness and headache, when eight milligrammes were injected. When the dose of fifteen milligrammes was reached, a severe epileptic fit followed. Next day a second dose of fifteen milligrammes did not cause a fit, but eighteen milligrammes, two days later, caused a fit in half an hour. After a week's intermission, twenty-four milligrammes were injected, and a severe fit occurred in twenty-five minutes. In a third patient a fit occurred after one injection of eight milligrammes, but ten milligrammes next day caused no fit. Fifteen milligrammes, however, were followed by a fit in thirty minutes, and a second injection of the same dose the following day caused a fit in fifteen minutes. Seventeen milligrammes next day caused a fit in thirty minutes. In a fourth patient a single dose of eighteen milligrammes caused, in ten minutes, giddiness and slight dazzling before the eyes, and in thirty minutes there occurred the usual aura of an attack—a sensation of something creeping up the right arm to the top of the head, and numbness and twitching in the right thigh, but no fit followed, although the patient was stupid and dull for a time just as after a fit.

Among other drugs which I have tried and found useless I may mention benzoate of soda and nitro-glycerine.

In hystero-epilepsy bromides, sometimes useful, fail entirely much more frequently than in simple epilepsy, and the combinations with digitalis and belladonna are also less frequently useful. Iron, especially guarded by aloes, is often of the highest value, quite apart from the existence of anæmia, and next to it valerianate of zinc, morphia, and turpentine.

High authorities have urged on different grounds that the diet of epileptics should contain little or no animal food. In a few observations which I have made by keeping a patient under unaltered medicinal treatment for alternate periods on a diet with and without animal food, I could observe no difference in the attacks, except that in one patient they were slightly more frequent in the periods when animal food was excluded, and in one patient hystero-epileptic attacks on ordinary diet became, when meat was excluded, severe epileptic fits, and again became hystero-epileptic when animal food was restored.

In pure epilepsy the only treatment needed during the attacks is such care as shall secure the patient, as far as possible, from injury. It is very different with the attacks of hystero-epilepsy, which, from their character, severity, and long duration, often furnish the attendants with a task of no small difficulty, and which can, almost always, be cut short by appropriate treatment. The patients often hurt themselves during the attacks, and some control is absolutely necessary. But, as already stated, restraint tends to increase the violence and makes the paroxysm last longer. Hence considerable judgment is often required, so to adjust control as to be efficient and not too much. I have seen these patients put within padded partitions and left alone, but I have never myself found this necessary.

The slighter attacks can be arrested by closing the mouth and nose with a towel for some thirty seconds, after Dr. Hare's method. The profound effect on the respiratory centre, and the related higher centres, caused by the anoxæmia, seems to arrest the convulsive action. Cold water over the head is often successful if applied freely; in severe attacks a moderate quantity only excites redoubled violence, while a second gallon is often more effectual than the first. This has the disadvantage of drenching the patient's head, and often giving cold. When the mouth is open during the attacks a small quantity of water poured into it is often effectual. A much more convenient and more effectual remedy than water, however, is strong faradisation to the skin; applied almost anywhere it will commonly quickly stop the attack. It is rare that ovarian pressure will arrest an attack. In some cases all these means fail, even when thoroughly used, and I have known such attacks go on, in spite of skilled treatment, for several hours. Chloroform is of little use; its administration is a matter of extreme difficulty, often impossibility, and the attack is commonly renewed, when the influence of the anæsthetic passes off. The remarkable effect of nausea in relaxing spasm, led me some years ago to try the effect of injections of apomorphia, and I have found in it an unfailing means of arresting the attacks. After the injection of a twelfth of a grain in four minutes with certainty all spasm ceases, and normal consciousness is restored; in six minutes the patient will get up and go to the sink; in eight minutes will vomit, and afterwards, except for slight nausea, is well. A twentieth of a grain has the same action, but is rather longer in its operation. Moreover, I have found that the treatment is, so far as the hysteroid symptoms are concerned, curative as well as palliative, for the attacks in many cases ceased after a few paroxysms had been thus cut short.—*Lancet*, April 10, 1880.

False Diphtheritic Membranes.

Dr. GAUCHER relates the following case (*Le Progrès Médical*, No. 34, 1879). The patient, a child, aged four years, was apparently moribund. The trachea was opened and a canula introduced, but the child did not breathe. The canula was withdrawn, a tracheal dilator used, and artificial respiration for some time performed, also without success. Dr. Gaucher then introduced the forceps, and drew out a false membrane, forming a complete cast of the trachea and bronchi. The patient immediately began to breathe and ultimately recovered.—*London Med. Record*, April 15, 1880.

A Case of Extreme Pharyngeal Stenosis the result of Syphilis; with Remarks.

Dr. T. GILBART SMITH and Mr. W. J. WALSHAM report (*Lancet*, April 17, 1880) the case of a woman, forty-seven years old, who was admitted on October 29, 1878, into the Royal Hospital for Diseases of the Chest, under the care of Dr. Gilbert Smith, suffering from prostration and dysphagia, accompanied by severe and recurrent attacks of dyspnoea. She gave a clear history of syphilis, which she had evidently contracted soon after her marriage twenty-six years before. She suffered for the first time ten years ago, from ulceration of the throat. This was relieved by treatment, but recurred at intervals up to the time of her admission. Eight months ago her voice became affected, and the movements of the tongue impeded. For six months she had been unable to swallow food, and for two months had suffered from severe and alarming attacks of dyspnoea. The tongue could not be protruded beyond the teeth; the right posterior pillar of the fauces was drawn backwards, and was adherent to the posterior wall of the pharynx. The uvula and a considerable portion of the soft palate had disappeared, leaving a clean semicircular border to the portion that

remained. On laryngoscopic examination the epiglottis and vocal cords could not be seen, but an aperture was visible one-eighth of an inch in diameter at the bottom of a funnel-shaped depression to the left of the middle line on a level with the epiglottis. This was separated by a thick cicatricial band from another and deeper depression to the right, which terminated in a cul-de-sac, containing pus. This small aperture, after considerable difficulty, was made out to be the only entrance to the larynx and œsophagus.

Tracheotomy was performed by Mr. Walsham on November 1st. On Nov. 24th attempts at dilatation were made, and on succeeding days repeated, but they failed to produce any material benefit. Stretchings by means of laminaria and sponge-tents could not be borne. On Dec. 5th Mr. Walsham partially divided the cicatricial band bounding one side of the aperture with M. Ricord's urethrotome. On the 8th it was further divided with a pair of curved scissors. One blade being placed in the aperture, the other in the ulcerated depression, incision was made little by little from above downwards so that a full view was obtained of the cut surface of the tissues, and any vessel, if divided, could be seen and secured. Care was taken to enlarge the aperture as much as possible in such a direction as would allow the food in passing downwards to avoid the entrance into the larynx. The parts were then forcibly dilated by the finger and œsophagus bougie. On Dec. 12th another incision was made at a different spot, and the epiglottis, vocal cords, and arytenoid cartilages came into view. When the patient left the hospital, Dec. 18th, the aperture measured three-quarters of an inch in diameter, and admitted a full-sized œsophagus bougie.

On Sept. 23, 1879, she was again seen by Dr. Gilbert Smith. The aperture had not contracted in the least. Stenosis of the pharynx appears to be very rare. The authors describe three distinct forms. The first, the most common, is situated between the naso- and mid-pharynx, and is caused by ulceration and contraction of the posterior pillars of the fauces, and the drawing backwards and subsequent adhesion of the soft palate to the pharyngeal wall.

Cases of this kind are reported by Messrs. Bradley, Cheevers, Reid, Coulson, and Schech. The second form is more rare; it occurs between the mouth and the pharynx, and is produced by the ulceration and contraction of the anterior fauces and the drawing downwards and subsequent adhesion of the soft palate to the dorsum of the tongue. A case is reported by Mr. West. The third variety involves the lower part of the pharynx, as in the case now before the Society; the stenosis being produced by bands of adhesions or soft or tough membranes, which stretch across the pharynx, and glue the parts together. Other similar cases are reported by Schech, Gerhardt, Trendelenburg, Schroetter, West, and Cheevers.

The authors draw the following conclusions: 1. That tracheotomy is called for both as a temporary expedient to obviate sudden death from asphyxia, and as an essential factor for safe and satisfactory treatment. 2. That division, with a guarded knife, presents advantages over other methods of treatment. 3. That several small notches are preferable to a deep incision, and that, when possible, the parts should be divided from above downwards, so as to allow a full view of the surface of the tissues divided. 4. That the aperture should be enlarged in a direction so as to permit the passage of liquid food clear of the entrance to the larynx.

In this case the iodide of potassium was administered freely during the whole course of the case. There was active ulceration going on by the side of the cicatricial tissue; and there could be no doubt that the new tissue and thickening were due to previous ulceration. The relief afforded to the dysphagia by the

operation obviated recourse to nutrient enemata, although perhaps they might have been resorted to with advantage. The effect of tracheotomy in arresting spasm of the glottis was an important fact. Allied to it was the occurrence in some cases of paralysis of the laryngeal muscles from the use of tracheotomy tubes; which has led to the suggestion that the tube should have an aperture made in it to allow of passage of air into the larynx from below, whilst the tube is worn.

Defect of the Pericardium.

Dr. HANS CHIARI describes, in the *Wiener Medizinische Wochenschrift* for April 3d, a case of almost complete deficiency of the parietal pericardium. The subject was a man aged 46, who had died of cirrhosis of the liver and tubercular peritonitis, with old tuberculosis of the apices of the lungs. No special physical signs had been noticed during life on the part of the heart, except accentuation of the second sound in the pulmonary artery, which was attributed to the state of the lung. On removing the sternum, the heart was found lying quite free in the left pleural cavity, in immediate contact with the median surface of the left lung. Both lungs were adherent at the apices, and were here the seat of old indurations inclosing cheesy and calcareous masses; elsewhere they were œdematous. The apex of the right lung formed a separate lobe about the size of a hen's egg; and the upper lobe of the left lung was divided into two by a nearly horizontal fissure. The heart, which appeared normal in structure, lay in its normal situation with regard to the thoracic walls. The mediastinal layer of the left parietal pleura was found to the right of the heart, and extended into the right half of the thorax. From its left surface, along with the visceral pleura for the left lung, the visceral pericardium was developed, proceeding forwards from the hilus of the left lung. The transition from pleura to pericardium was for the most part direct, without folds. Only at the part where the pleura passed over the vena cava inferior there was a duplicature about three centimetres in depth, which, gradually becoming a crescentic fold, could be followed for seven centimetres along the posterior circumference of the auricle as far as the hilus of the left lung. This duplicature contained some adipose tissue. The mediastinal layer of the right parietal pleura was in its usual situation. The mediastinum was only three centimetres wide; it contained a little fat, and the usual structures (aorta, œsophagus, etc.) in their normal position. The left phrenic nerve alone was abnormal in position: it lay on the outer surface of the pleura, where the mediastinal passed into the parietal portion, crossing the heart obliquely to the diaphragm, into which it passed at an almost right angle. The diaphragm itself appeared quite normal, except that the middle division of the central tendon was somewhat smaller than usual.—*British Med. Journal*, April 24, 1880.

The Diagnosis of Pericardial Adhesion.

After an analysis of the symptoms which have been given in earlier and in more recent times as diagnostic of pericardial adhesion, Dr. RIEGEL, in Volkmann's *Sammlung Klinischer Vorträge*, arrives at the conclusions (agreeing therein with the opinion expressed by N. Weiss in his work on the subject) that as yet we are far from possessing a constantly sure indication of the condition under consideration, and that it is only in rare cases that the diagnosis of pericardial adhesion can be readily made. This is especially the case when a high degree of systolic retraction of the apex of the heart, or even of a large portion of the neighbouring thoracic wall, is present. The presence of a systolic retraction points to little more than an impediment to the normal systolic movement of

the heart; and other rare causes, which may lead to retraction, have to be excluded. If there be at the same time a diastolic collapse of the veins, or if the phenomena have been distinctly traced, under the eye of the observer, to pericarditis, the diagnosis is rendered more easy. The absence of the apex-beat becomes of diagnostic value, if there be evidence of previous pericarditis, and if, after this, the apex-beat, having been previously present, have gradually disappeared.—*British Med. Journal*, April 17, 1880.

Endarteritis Obliterans.

An interesting contribution to the pathological anatomy of visceral syphilis has recently been made by Ehrlich of Berlin (*Zeitsch. Klin. Med.*, I., 2, page 378). In a fatal case of constitutional syphilis the heart was found to contain numerous foci of disease which might be briefly described as "gummata." Some of these masses were of a deep red or hemorrhagic appearance; others were whitish, or whitish with a hemorrhagic boundary. The origin of these "gummata" was found by Ehrlich to be endarteritis syphilitica obliterans affecting the smaller vessels—both veins and arteries—in the neighbourhood as well as in the centre of the masses. That the obstruction and finally the occlusion of the vessels had been the primary disease, and was not an effect of the other disease, was proved by the appearance of the muscular fibres within the region of the "gumma," which were uniformly and considerably atrophied. In short, the foci of disease were infarcts—partly hemorrhagic and partly anæmic.—*Med. Times and Gazette*, April 17, 1880.

Alterations in the Alimentary Tract in Pulmonary Consumption.

MAZOTTI (*Bullettino delle Scienze Mediche*, January, 1880) states that, in fifty necropsies performed on patients who had died of pulmonary consumption, he found lesions of the alimentary tract in 38; in the remaining 12, no such lesions were present. In 37 of the cases so affected the lesions consisted of ulcers situated either on the tongue, pharynx, stomach, or large or small intestine, but not in the œsophagus, or rectum. In all cases, with one exception, the lesions were multiple, ulceration of the tongue, pharynx, or stomach existing simultaneously with ulceration of the intestines. In 12 cases the lesions were confined to the small intestine; in 5 to the large, while in 20 they affected both viscera. The author observes that, in cases where ulceration has been confined to the small intestine, the large has frequently contained solid fecal matter, thereby demonstrating a fact already remarked on by Niemeyer, that ulceration of the small intestines may exist without giving rise to diarrhœa. As a rule, the number and extent of the intestinal ulcerations bore a constant relation to the pulmonary lesions. In the small intestine, the ulcers were generally seated in the lower portion of the ileum, although in some cases they were confined to the ileo-cæcal valve, while in others they extended as high as the jejunum, and even duodenum. These ulcers in the earliest stage appeared as small white spherical bodies of the size of a pin's head springing from the mucous membrane. At a later stage they became larger, and the mucous membrane had shrunk away from their summits, thus leaving punctiform ulcers. In some cases, the ulcers were situated on Peyer's patches, and were multiple. In the large intestine, the lesions were as a rule confined to the ascending colon, though, when numerous, they were also found in the cæcum and around the vermiform appendix. The author remarks on the extreme rarity of tubercular granulations in the large intestine as compared with the small. The article extends to a considerable length, an analysis of each case being given, and ample references made to the literature of the subject.—*London Med. Record*, April 15, 1880.

Eczema from Use of Atropia Collyria.

The remarkable susceptibility of certain individuals to particular drugs, as evidenced by a constant relation between their use and the appearance of eruptions of various kinds on the skin, has of late received much attention, especially in Germany, by Kühner and Behrend. Dr. JULIUS DONATH, of Baja (Hungary), records (*Wiener Med. Wochenschrift*, No. 12, 1880) a case where the introduction of a few drops of a 1 per cent. solution of sulphate of atropia into the eye was invariably followed by severe eczema and pseudo-erysipelatous swelling and redness of the face and neck. The patient was a woman of forty-five, of good constitution, with chronic disease of the left eye giving rise to corneal opacity and synechiæ.—*Med. Times and Gazette*, April 17, 1880.

Treatment of the Itch at the St. Louis.

In a clinical lecture (*Gaz. des Hôp.*, Feb. 10) Prof. HARDY states that he has since 1852 employed in the treatment of the itch the ointment composed of one part of lard, a sixth part of flowers of sulphur, and a twelfth part of subcarbonate of soda. So efficacious have proved thorough and almost violent frictions with this, continued for twenty or thirty minutes, especially at the natural bends and folds of the skin, that the cure is absolutely certain. Among from 4000 to 5000 adults so treated at the St. Louis, in only one instance was a repetition of the frictions needed. The ointment, after the rubbing, should be left on for several hours, or all night, without washing. Next day an emollient bath may be taken, which may be repeated every twenty-four or forty-eight hours for a week.—*Med. Times and Gazette*, April 10, 1880.

New Staining Fluid for Amyloid Organs.

Dr. CURSCHMANN, of Hamburg, has discovered that a substance called *methyl-green*, which has been lately introduced into practical histology as a staining medium, has a peculiar affinity for amyloid substance, and colours it an intense violet (*Virchow's Archiv*, vol. lxxix., part 3, page 556). The surrounding tissues, that have not undergone degeneration, are stained green or bluish-green, and the contrast is therefore very striking, whilst the smallest spot of amyloid disease can be readily discovered. Hardly less important than this discovery is the observation that methyl-green colours so-called hyaline-casts (*in situ*) ultramarine blue, so that these also can be readily distinguished in sections of the kidney from the green-coloured tissues around, as well as from the violet amyloid spots in which they may lie. Methyl-green, which can be purchased of any chemist, is used for staining in the form of a 1 per cent. aqueous solution. A few minutes' immersion of a microscopical section in this solution is sufficient; but sharper and more uniform coloration is produced by using a more dilute medium for a longer time. Preparations so made may be mounted in dilute glycerine, but not in Canada balsam, inasmuch as alcohol, turpentine, and oil of cloves quickly discharge the colour.—*Med. Times and Gazette*, April 17, 1880.

Surgery.*Accidental Inoculation of Syphilis by Tattooing.*

M. ROBERT, a French army surgeon, gives (*Recueil de Méd., etc., Militaires*, Nov., Dec. 1879) an account of eight soldiers who were tattooed by a man

suffering at the time from syphilis, and who had mucous patches about the mouth. The operator used his saliva to dilute the ink employed, and also moistened the needles in his mouth. Three of the eight soldiers developed syphilis, while five escaped, though only one of them had previously suffered from that disease. Some of the men, however, washed their wounds directly after the operation, which, together with the fact that the tattooer did not use his saliva so freely in some cases as in others, accounts, in M. Roberts opinion, for the escape of some of the men. In the three instances where syphilis followed, the initial lesions appeared in due course at the site of inoculation, which was in each case the right forearm, and were followed by enlarged glands and general syphilitic eruption.—*Lond. Med. Record*, April 15, 1880.

[The reader is referred to an extremely interesting case of a similar character reported by Drs. Maury and Dulles, in the number of the *American Journal of the Medical Sciences* for January, 1878, p. 44.]

A New Treatment of Gonorrhœal Ophthalmia.

Mr. C. BADER, Ophthalmic Surgeon to Guy's Hospital, suggests (*Lancet*, May 1, 1880) a new mode of treatment of gonorrhœal ophthalmia based upon the fact that mercury, if thoroughly applied locally, has a destructive effect upon contagion. In vaseline, in itself of antiseptic origin, we have an invaluable means of bringing and keeping mercury in contact with mucous membranes, such as conjunctiva, urethra, etc.; daturin or atropin are added to counteract disturbances which, during the ophthalmia, may proceed from the iris and deeper parts of the eye. Mr. Bader uses an ointment, consisting of nitric oxide of mercury one grain, daturin one-fifth of a grain, vaseline one ounce.

Five cases are reported in which the disease was of a severe type, and in which this treatment was used with most gratifying success. The ointment is applied with a large camel's-hair brush beneath the upper eyelid, and the eye then bound up with lint smeared over with the ointment.

Corneal Maculæ.

Dr. LOPEZ OCANA, in a paper published in *El Genio Medico-Quirurgico*, No. 1275, excludes all consideration of corneal albugo or leucoma, which he considers hopelessly indelible. A macula, however, which consists in a number of corneal cells in which the normal course of development has been interfered with, is capable of successful treatment. In cases where, together with maculæ, there exists also a chronic vascular condition of the palpebral conjunctiva, excellent results will be obtained by the use either of calomel or of red precipitate. In cases of simple maculæ, apart from other complications, the author has obtained very satisfactory results from a collyrium composed of tincture of opium and water, of a strength at first of 1 part in 8, gradually increased to 1 in 4. Should the eye become tolerant of the remedy, which will then lose much of its power, the author recommends a pomade composed of chrysophanic acid and vaseline, 1 in 40. This is an active preparation, and requires to be used with discretion and in small quantities, once a day or more, according to the degree in which it is tolerated.—*London Med. Record*, April 15, 1880.

Case of Hysterical Blindness with Spasmodic Squint.

This case, which MANZ records at considerable length (*Berliner Klinische Wochenschrift*, Jan. 12, 19, 1880), presents a group of symptoms differing in some respects from any of the recently described hysterical affections of the

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visual function. The patient was a delicate girl, by occupation a governess. The following symptoms were developed whilst she was under observation; pain in the head, inward deviation of the right eye, followed next day by inward deviation of the left, each cornea being turned so much inwards that its inner margin was hidden by the caruncle; contraction of the pupils; extreme amblyopia, fingers being counted with difficulty at one foot; and concentric contraction of the visual fields. The refraction determined by the ophthalmoscope was slightly myopic; the optic disks were normal; perception of colour, when it could be tested, was intact. The girl stated that two years previously she had suffered a similar attack, lasting nine months, and associated with convulsions. While under treatment, and without known exciting cause, she was seized several times with convulsions in the form of a marked opisthotonos, with almost complete loss of consciousness. The symptoms above described underwent remarkable variations as regards their intensity within very short periods of time; sleeplessness intensified them, while sleep, procured if necessary by morphia, relieved them. The acuity of vision especially varied greatly even during examination, being rapidly lessened by the effort to use the eyes. Recovery, more or less complete, occurred several times, only to be soon followed by a recurrence of all the symptoms. With regard to the strabismus, it is noteworthy that, when the condition was at its worst, both eyes were turned strongly downwards and inwards, and had lost all power of movement upwards and outwards. Reference is made to other cases of a somewhat similar character. [A case closely resembling this one in certain points is recorded in the *Royal London Ophthalmic Hospital Reports*, vol. ix. page 27.]—*London Med. Record*, April 15, 1880.

Method of Correcting Sinking of the Nose.

At a meeting of the Imperial and Royal Medical Society of Vienna (*Medizinische Jahrbucher*, January, 1880), Dr. MIKULICZ showed a patient on whom he had performed rhinoplasty, and made some remarks on the subject. He said that the problem of making an artificial support to the nose, which was the most difficult part of rhinoplasty, had been attempted to be solved by surgeons in very various methods. Dieffenbach and Rust tried a support made of a plate of gold; this, however, produced suppuration by its pressure, and soon had to be removed. Leisrink used a support made of amber in the case of a child three years old, allowing the parts to heal over it. There is no information, however, as to the permanency of the success, or as to the state of affairs during the growth of the child. Other methods have been tried by Dieffenbach, Langenbeck, Busch, Volkmann, Thiersch, etc. The idea of Dr. Mikulicz was to construct a nasal support which might be inserted and removed at will, just as is done with artificial sets of teeth and artificial eyes, which do not produce ulceration if they are frequently changed and kept clean. He constructed for this purpose a support consisting of two symmetrical bent pieces of copper wire covered with vulcanized caoutchouc. The two first portions lie parallel to each other under the bridge of the nose, and raise it up. The two middle pieces lie like the sides of a steep roof, and occupy a position nearly corresponding to the lateral border of the pyriform aperture. The posterior piece is slightly curved, and rests against the lower border of the aperture. The apparatus can be introduced and removed by means of a small forceps, and, when in the nose, is not seen. It causes no trouble, and the wearer soon becomes accustomed to the sense of a foreign body which it produces. The patient, who was exhibited to the society, was a woman aged 27. She had worn the apparatus sixteen days, and had acquired considerable facility in its management.—*London Med. Record*, March 15, 1880.

Complete Closure of the Larynx after Diphtheria.

Dr. STOERK relates the following case (*Wiener Medizinische Wochenschrift*, No 46, 1879). The patient, a boy 7 years old, had had an attack of diphtheria three years previously, for which tracheotomy had been performed. Three weeks after the operation the tracheal canula (an unfenestrated one) had been removed, but replaced immediately on account of difficulty of breathing. The child had worn it continually until he came under the care of Professor Stoerk. He was not able to speak aloud. A *cul-de-sac* could be seen with the aid of the laryngeal mirror just below the true vocal cords which moved freely, but their movement was not accompanied by phonation. There was no appearance of mucus, which generally makes its way up, even in very high degrees of laryngeal stenosis. A mirror introduced through the tracheal wound demonstrated a complete diaphragm between the larynx and trachea. The mucous surfaces, soon after the local inflammation, would seem to have grown together; the unfenestrated canula cutting off the passage of air and secretions which might have prevented such a result. The adherent tissues were divided, and the parts dilated. After the closure of the tracheal wound the boy regained his voice.—*Lond. Med. Record*, April 15, 1880.

The Removal of the Pharynx, Larynx, etc.

This operation has lately been performed successfully by Professor CASELLI, of Bologna (*Il Morgagni*, September, 1879). The case was one of epithelioma with stricture of the glottis. The first step in the operation was to perform tracheotomy, and then insert Trendelenburg's canula; the next to lay bare the larynx and isolate it. This was then removed by means of the galvano-cautery, as were also the cricoid cartilage, and the pharynx as high up as the tonsils. The hyoid bone was next divided at its middle, and the base of the tongue amputated together with the soft palate, the remaining portion of pharynx up to the level of the posterior nares, and both tonsils. The operation lasted three hours, and but little blood was lost, owing to the constant use of the galvano-cautery. The dressing was antiseptic, and the upper two-thirds only of the wound brought together. An œsophageal sound and the canula were both maintained in position. At the time of writing, *i. e.*, fifty-three hours after the operation, the patient had completely recovered from the shock, and promised well. (The operation proved eventually successful, and Professor Caselli has been able to adapt an artificial œsophagus and larynx.)—*London Med. Record*, April 15, 1880.

Case of Resection of the Anterior Wall of the Thorax.

Dr. L. SZUMAN reports (*Deutsche Zeitschrift für Chirurgie*, Band xii. Heft 4, 5) the following case from the clinique of Prof. Fischer, of Breslau. The patient, a woman aged 48, had, about four years before her admission, noticed, for the first time, a small fixed tumour over the fourth rib, and in a line with the mamma in the left side. After it had grown slowly during two years and a half, it commenced to increase rapidly in size, and extended into the left armpit. The growth of this swelling was attended with but slight and occasional pains. When first seen by Professor Fischer in June, 1878, she presented a tumour occupying almost the whole of the anterior wall of the left side of the thorax. Externally the growth extended to the scapular line, and into the left axilla, preventing complete adduction of the arm. Upwards it reached as far as the clavicle, downwards to the seventh rib, and internally to the left margin of the sternum. It was firmly fixed at its base, and projected forwards to a considerable distance in

front of the level of the right nipple. Its anterior surface was studded by hard, small, and rounded growths. The integument over the tumour was movable, quite sound, and traversed by numerous enlarged veins of a dark-blue colour. The general health of the patient was good. As the rapidly growing tumour would speedily have compressed the nerves and vessels of the left upper extremity, and as the mass by its weight and enormous size prevented the patient from working for her support, Professor Fischer decided to extirpate the disease. The operation was commenced under the assumption that the costal pleura might have been readily stripped off from the base of the tumour, and from the diseased portions of the ribs. It was found, however, in the course of the operation that the growth extended for some distance into the left cavity of the chest, and that it was in close connection with the costal pleura. A vertical incision having been made in the integument, the superficial portions of the growth were cut away, and portions of the third and next three inferior ribs separated and removed. The deep and pleural portions of the tumour were then dissected away, and in the course of this stage of the operation the left thoracic cavity was freely laid open, and the left lung and the surface of the pericardium fully exposed. Every bleeding vessel was at once secured, and the patient lost but little blood during the operation. A large drainage-tube having been carried across the thoracic cavity, and another along the more superficial parts of the wound, the edges of the skin were brought together, and fixed by sutures. The surface of the chest had been carefully disinfected before the operation, and the wound was afterwards covered by Lister's dressing. The carbolic acid spray was not used during the operation, nor on subsequent change of dressing. The result of the case proves, Professor Fischer states, that the use of the spray is not an essential adjunct to antiseptic surgery. The patient suffered much at first in consequence of collapse of the left lung, but afterwards progressed favourably. The wound was quite closed on the fortieth day. The extirpated tumour weighed nine pounds and a half. On examination it was found to be an enchondroma that had ossified at its base, and had undergone colloid degeneration at its superficial parts. Portions of the third and three following ribs had been involved in the growth. The portions of the fourth and fifth ribs that were removed measured each about four inches and a quarter in length; those of the third and sixth ribs each about half this length. In a report on the condition of the patient after her recovery, Dr. Szuman states that there was perfect movement of the left arm, and that the pectoralis major, which had been previously attached to the tumour, had now become attached to the remaining portions of the upper ribs, and performed its functions quite well. The portion of integument which had been so much stretched over the surface of the tumour was drawn inwards between the left lung and the wall of the thorax, and was firmly adherent to the pleura pulmonalis. The left lung, though collapsed, was not atelectatic, and, when the patient coughed, it occupied the whole of the left thoracic cavity. The defect in the anterior wall of the thorax corresponded to the size of an infant's head; the heart, covered only by pericardium and a portion of integument adherent to the sac, could be seen pulsating in the middle of the defect, and the contractions of the left auricle and ventricle could be distinctly seen and felt.—*Lond. Med. Record*, April 15, 1880.

Statistics of Cancer of the Breast.

Dr. J. OLDEKOP has published, in the twenty-fourth volume, of the *Archiv für Klinische Chirurgie*, a statistical summary of all the cases of mammary cancer occurring in Professor Esmarch's hospital and private practice from 1850 to 1878. With regard to age, most of the cases occurred between the forty-eighth

and fiftieth years; in 123 patients the age did not exceed 48; in 71, it was between 48 and 58; and, in 35, the age was 59 and upwards. In 21 cases, there are no particulars as regards age. Women who had borne more than six children furnished the greatest contingent, and next came those who had no children. There were nine in this category, against 103 who had given birth to children. In 61 cases in which the information could be obtained, 15 had not, and 46 had, suckled their children. In 36 cases, mastitis had preceded; but in only 9 was it ascertained with certainty that the cancer had its starting-point in an induration or cicatrix remaining after mastitis. In three cases, there had been contusion with extravasation; the extravasation, after some years, forming the centre of the new growth. In two cases, the seat of the primary nodule was a part of the breast which had been for some years pressed on by the string of the corset; in a third, it was a part that was often pressed on by a yoke. In 126 cases, the right breast was diseased, in 102 the left. The outer and upper part of the mamma was most frequently first affected; and this is ascribed by Dr. Oldekop to the greater liability of this part to injury. In three cases the cancer was preceded by chronic eczema of the breast. Circumstances indicating the influence of hereditary tendency were noticed in eleven cases. The average duration of life from the commencement of the disease was, in the cases not operated on, 22.6 months; in those operated on, 38.1 months. On 225 patients, 287 operations were performed. Of these 225, there died in the hospital 28; viz., 5 from return of the cancer, and 23 from the operation; among these were 14 cases of total extirpation of the mamma with removal of the axillary glands. With regard to the influence of treatment on the mortality and on the time required for healing, Dr. Oldekop's statistics show no marked difference between the antiseptic and the non-antiseptic methods; he remarks, however, that erysipelas has been less frequent in Dr. Esmarch's practice since the introduction of the antiseptic method. The time after the operation at which the disease returned is noted in 112 cases. In 14 cases it immediately followed the operation; in 15, it took place within the first month; in 23, within three months; in 15, within more than three and less than six months; in 13, from the seventh to the ninth month; in 14, from the tenth to the twelfth month; in 9, from the thirteenth to the eighteenth month; and in 8, within three years. In one doubtful case the interval is said to have exceeded three years. At the time of the report, 44 of the women had remained free from a return of the disease; of these, six had died of intercurrent diseases; three within three years since the operation, and three after three years. In 15, the time during which they had remained free from relapse was under three years; and, assuming three years as the extreme time for a return of the disease, 26 could be regarded as definitely cured; in 10 of these, the infiltrated axillary glands had been removed with the mammary cancer. In some cases a second operation was necessary. Although the number of cases in which a complete cure followed the operation is not large, Dr. Oldekop regards it as sufficiently encouraging to induce surgeons to operate early, and thus increase the chance of a good result.—*British Med. Journal*, April 17, 1880.

On the Treatment of Gonorrhœa.
(Concluded from last Number, page 300.)

3. *Indirect Treatment of Gonorrhœa.*—It often happens that local means do not alone suffice in the treatment of chronic gonorrhœa, and then we have to supplement these by the use of medicinal substances acting through the digestive passages. Most of the substances thus employed, when introduced into the digestive organs, are excreted into the urine, and in this way act curatively on the

gonorrhœa. Amongst those which are especially active in this way may be mentioned the balsams of copaiba and Peru, cubeb pepper, oil of turpentine, gurián balsam, and matico. Recently the kava-kava or ava-ava has been strongly recommended for the treatment of acute and chronic gonorrhœa, but it has not succeeded in Prof. ZEISSL's hands. On the other hand, preparations of iron have proved very efficacious. As to the question, when should these substances be commenced? a general rule can scarcely be laid down. In hospital practice, when the patient can be closely watched, recourse to them need be had but comparatively rarely; but in private practice the case is different. Patients wishing to pursue their occupation often neglect the injections for a whole day, or they perform them so unskillfully that not a drop of the fluid enters the urethra. Under such circumstances we must have recourse to internal medicines. But it is also often observed that after continuing injections for days the discharge does not diminish, and continues very thin; while after the employment of some of the above-named substances for some time it lessens in quantity and acquires consistence. The opinion is frequently expressed that the employment of these resinous substances, especially copaiba, may give rise to albuminuria, but Prof. Zeissl has never met with an instance in the thousands of cases which he has treated by resinous substances. The opinion has indeed arisen through ignorance of chemistry. It has been observed that, on the addition of nitric acid to the urine of a person who has employed these medicines, a white precipitate is produced. But this precipitate is again dissolved by boiling, which is not the case with a precipitate of albumen produced by nitric acid. Or if we boil the urine, slightly acidulated with acetic acid, or apply Hoppe-Seyler's sensitive test, no trace of albumen is seen to exist. Weikart's and Prof. Zeissl's experiments have shown that it is not the ethereal oil but uric acid that is precipitated by the nitric acid. These resinous bodies sometimes give rise to a form of urticaria (*U. balsamica*), but this soon disappears on discontinuing the remedy. The following formulæ are recommended by Prof. Zeissl: 1. Matico in capsules (fifteen a day); 2. Ethereal extract of cubebs and spirit of turpentine, equal parts, made into a pill-mass with magnesia usta, of which twenty-four pills weighing each 35 centigrammes should be taken daily; 3. Copaiba 15 or 20 drops three times a day in capsules; 4. White wax 5 grammes melted by a gentle heat, balsam copaiba 15 grammes, magnesia 9 grammes, to make a pill-mass, eight pills of 30 centigrammes three times a day. Balsam of Peru, turpentine, and similar substances may be given in the same way. 5. Of preparations of iron, a teaspoonful may be given five times a day of a mixture containing $1\frac{1}{2}$ parts of the liquor ferri, 150 of water, and 25 of syrup of raspberries; or 1 gramme of saccharated carbonate rubbed up with 3 grammes of sugar may be divided into ten powders, of which three are given daily. Prof. Zeissl has given a fair trial to an infusion of the kava-kava root, which is in fact the *Piper methysticum*, but has found it completely useless.

As already observed, not unfrequently neither the direct nor indirect treatment succeeds in effecting a cure, and then we have to resort to the use of bougies and sounds; the cause of this prolonged duration of the affection being the implication of the prostate. As Thompson remarks, most practitioners in treating gonorrhœa pay too little attention to the disease of the prostate which may be consequent upon this. Prostatitis in its acute form indeed is rarely overlooked, on account of the severe suffering that attends it. Very severe pains are felt in the perineal region, especially on walking or when sitting, while a sensation is perceived as if the rectum were obstructed by a foreign body, and the passage of the feces and of the urine is rendered difficult. On examination by the rectum the prostate is found swollen and very sensitive; and if the inflammation goes

on unchecked, in from the eighth to the twelfth day suppuration takes place. Generally the abscess so formed discharges itself, and usually during the ejaculation consequent upon a lascivious dream. If, however, there is a violent pain with high fever and evident fluctuation, an incision must be made through the rectum for the discharge of the pus; but although Prof. Zeissl has had many cases in which this operation has been performed with the best results, yet he has never had recourse to it except in the extremest need, as there is always danger of the healing process being impeded by the passage of the feces. In very rare cases the prostatic abscess is discharged through the perineum, and a urinary fistula may then be the result.

Chronic inflammation is, however, a far more frequent occurrence than acute prostatitis. The symptoms in both forms are similar, except that the accompanying febrile action is more of the synochal type in acute, and more of the intermittent type in chronic prostatitis. The patients complain of a dull sensation in the perineum, especially when standing or walking, as also of pains in the sacral region and along the posterior parts of the thighs. The urine contains epithelial cells mingled with pus corpuscles and prostatic secretion. On examination by the rectum, the prostate is seldom found enlarged, but it is more or less sensitive to strong pressure. A patient in this condition may employ injections, and even those which contain a pulverulent deposit, for months, and yet not be completely cured. As already stated, such a case must be treated by the elastic bougie, or better still by means of a solid instrument. Choosing one corresponding to the size of the orifice of the urethra, we find, supposing there be no stricture present, that we can pass it without obstacle on to the prostatic portion of the urethra. Arrived here, we are unable to pass into the bladder unless we employ considerable force—which is always to be avoided. An instrument of three or four numbers less will pass without difficulty into the bladder, causing during its passage through the prostatic portion not only the stabbing pain always felt on gliding over the caput gallinaginis; but also a severe burning sensation along the entire prostatic portion. After the first introduction of a solid instrument there usually issue from the urethra one or more drops of a viscid fluid mingled with blood-serum, and which is nothing else than the prostatic secretion combined with a little blood derived from the hyperæmic prostate. An instrument must be passed daily for several days, and after the second or third introduction a larger one will pass easily into the bladder. One rule should be observed in cases in which the passage is not effected easily over the prostate into the bladder—viz., to greatly depress the instrument, when it will easily slip into the bladder. It is always preferable for beginners to employ a metallic catheter rather than a sound, as it is a source of great satisfaction to them to see the urine flow from the bladder, and not remain in painful doubt, during the four or five minutes the instrument ought to remain, whether it is actually in the bladder or has made a false passage. If this procedure be continued for some days, the patient observes, sometimes by day, but much oftener at night during sleep, that there is a considerable quantity of a viscous fluid discharged from the urethra, unaccompanied by lascivious dreams or erections, and which leaves a sharply defined gray spot on his linen. This is a sign that the chronic prostatitis has come to an end. After each introduction of the instrument either some water or a very dilute solution of a metallic salt should be injected, in order to wash away any of the oil which may have become detached from the sound, as this induces a rather sharp burning sensation in the urethra.

By this mode of treatment a chronic gonorrhœa which has often persisted for years is cured in a comparatively short time. The secretion which appears at the mouth of the urethra in this affection arises not only from the small diseased

spots of the urethra still uncovered by epithelium, but also at least in part from the prostate. By the introduction of the sound a sharper irritation is excited in the portions of the mucous membrane of the urethra suffering from chronic catarrh, and the moderately swollen prostate is at the same time submitted to compression, and in this way the symptoms which characterize chronic urethral catarrh are brought to an end. In Prof. Zeissl's opinion, chronic gonorrhœa never exists without a moderate tumefaction of the prostate, which, however, is not always perceptible to the sense of touch. In confirmation of the correctness of this view, it is to be observed that individuals who have very frequently had gonorrhœa, or in whom gonorrhœa has persisted for a long period, are the subjects of a considerable enlargement of the prostate in their thirty-fifth year, and often even younger. This hypertrophy is the result of the hyperæmic condition which the prostatic portion of the urethra and the prostate itself are in during the existence of chronic gonorrhœa; and we all know that an organ to which for a long time a very large supply of blood is conveyed becomes hypertrophied.—*Medical Times and Gazette*, Feb. 21, 1880.

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Urethro-perineal Inflammation and Abscess due to Gonorrhœa.

M. MAURIAC (*Gazette des Hôpitaux*, Feb. 17, 1880) remarks that peri-urethral abscesses, when situated in the penile portion, appear as hard red painful lumps, and may be met with anywhere between the fossa navicularis and the bulb. They sometimes cause considerable peripheral œdema, are readily diagnosed, and run a rapid course. To avoid fistulæ, an early opening should be made. Abscesses around the deeper urethra are much more serious than those just mentioned. They generally begin in Cowper's glands or the prostate, and, if care be not taken, may be mistaken for abscesses connected with stricture, or for superficial abscesses unconnected with the urethra at all. The inflammation of the urethra may extend to all the glands in connection with it, from the simple acini to the conglomerate glands of Cowper and the prostate. Acute inflammation of Cowper's glands nearly always ends in suppuration. The most frequent cause is gonorrhœa, when it has lasted from twenty to twenty-five days. Balsamic remedies and injections do not appear to have any influence in causing inflammation of these glands; but it sometimes follows immoderate sexual indulgence, or a blow on the perineum, and may also arise from the introduction of too large an instrument into the urethra, or from the retention of a bougie. One gland only is usually affected, and the left more often than the right. It is rare for both glands to be attacked at the same time. The abscess may point externally or internally; sometimes it opens both through the perineum and into the urethra. Suppuration occurs from the fifth to the tenth day, and in eight or ten days afterwards cicatrization is usually complete. As a general rule, if the urethra be free from stricture, any inflammatory swelling deep in the perineum at its anterior portion is connected with Cowper's glands; while abscesses in the posterior part of the perineum are connected either with a lesion of the anus or of the prostate. Simple perineal abscesses may, however, occur, and when not seen early, there may be some difficulty in the diagnosis; such abscesses, however, quickly close after incision, and urinary infiltration never takes place. The treatment of inflammation of Cowper's glands, before suppuration has taken place, consists in the application of leeches, blue ointment, and extract of belladonna, poultices, prolonged baths, and rest. Saline purgatives should also be given. As soon as fluctuation can be made out, or even before it is well marked, the swelling should be incised. Inflammation and abscess of the prostate are also described by the author.—*London Med. Record*, April 15, 1880.

Syphilitic Ulceration of the Bladder.

In this paper (*Vierteljahresschrift für Dermatol. und Syphilis*, 1879, Heft 4) PROKSCH does not bring forward any example of his own, but gives an account of six cases, which comprise all the satisfactory instances he has been able to find recorded during the last four hundred years. The six cases include one by Morgagni, two by Ricord, one by Virchow, one by Vidal (de Cassis), and one by Tarnowsky. Proksch sums up the information afforded by a study of these cases as follows. Ulceration of the bladder, sometimes, though rarely, happens in syphilis. The age of the patient has no influence on the occurrence of the ulcers, which have been found in patients from four to eighty-four years of age. There were four men, one woman, and one child. Vidal's patient was of vigorous constitution; Tarnowsky's patient was, on the contrary, weakly. The ulcers of the bladder occurred in four cases with, and in two without, ulcers of the urethra. The affection came on in Ricord's and Vidal's cases about the beginning of constitutional manifestations; in Virchow's and Tarnowsky's cases, other syphilitic lesions had gone before. In Ricord's cases, the ulcers of the bladder and urethra were the only secondary signs present. The number of ulcers varied between one and eleven; but in two cases, the ulceration was diffused. The size of the ulcers varied from a lentil to a kreuzer. The ulcers were either superficial (Tarnowsky), or penetrated the mucous tissue (Ricord). In Vidal's case, the wall of the bladder was perforated. The termination of the cases was either healing of the ulcers (as in Virchow's case, and to some extent in one of Ricord's cases), or death from perforation of the bladder. What share the non-perforating ulcers had in the fatal result, cannot be proved. The symptoms of ulceration during life would vary according to the seat, number, size, and depth of the ulcers; but cystitis and catarrh of the bladder, varying in degree in different cases, would probably be present.—*Lond. Med. Record*, April 15, 1880.

Use of the Catgut Ligature in Aneurism.

Dr. M. TAPIA gives (*El Genio Medico-Quirurgico*, No. 1275) a series of three cases of aneurism successfully treated by ligature of the arteries involved, the antiseptic method having been employed in all three. The first occurred in a healthy male, aged 31, and involved the axillary artery in its first stage. Pressure, with iodine and digitalis internally, were apparently giving satisfactory results, when unexpectedly the sac of the aneurism burst, and the patient's arm quickly became enormously swollen. In these circumstances it was necessary to at once secure the vessel, which was done under strictly antiseptic precautions with a very satisfactory result. The highest temperature was on the night after the operation, when the centigrade thermometer showed 40 deg. (104° Fahr.). The wound healed without any appreciable suppuration, and the patient was discharged cured within six weeks. In the second case, a large axillary aneurism necessitated ligature of the subclavian. The artery was exposed at a depth of seven centimetres, and inclosed in a loop of catgut which was left buried in the wound, causing not the slightest symptom of irritation. The treatment, which was antiseptic throughout, was continued for a month, and resulted in complete recovery. The third case was one of popliteal aneurism, in which ligature of the femoral artery was successfully performed, after pressure by means of weights had failed. The author considers these cases as affording strong arguments in favour of the antiseptic ligature, which in his opinion diminishes very considerably the risk of secondary hemorrhage and other accidents. Most of the substances hitherto used as ligatures act as foreign bodies, and set up irritation and inflam-

mation in the vascular walls with eventually perforation and hemorrhage. Against this particular danger, the catgut ligature appears to be a complete safeguard.—*Lond. Med. Record*, April 15, 1880.

Ligature of the Carotid for Aneurism of the Innominate Artery.

The case reported by M. SABATIER (in the *Lyon Médical*, Oct. 5, 12, 1879), from the treatise of M. Desgranges, is worth recording as a fresh instance of the distal operation in (presumed) innominate aneurism, and to some extent of its good effect, though its value is seriously diminished by the absence of any *post-mortem* examination.

The symptoms are given in detail, but we do not judge it necessary to reproduce them here. It is sufficient to say that they were such as seem to justify the diagnosis of aneurism of the innominate artery—though, as far as the present reporter can see, there is nothing to show that the aorta was not also affected, nor even to render it absolutely impossible that the aneurism might not have been purely aortic, as it was in Mr. Christopher Heath's well-known case. All that is said on this head is, that the diagnosis of aortic aneurism was excluded on account of the development of the tumour so exclusively on the right side of the thorax. But Mr. Heath's and other cases show that this sign is not by any means certain. The right carotid artery was tied on February 8, 1878. This was followed at first by a considerable diminution of the pulsation and size of the tumour, but in a few days the parts around the wound became inflamed and œdematous, and then the tumour began to grow in size—though the pulsation continued more feeble, and the rheumatic pains of which the patient had complained were much easier; and in this condition he remained till he quitted the hospital, after a stay of three months. At that time, his general condition was one of much general weakness. He survived his discharge from the hospital about nine months, and died from a cause which seemed quite unconnected with the aneurism—viz., from bronchitis contracted during a period of very cold weather. He had been under medical observation, and the aneurism had been going on so well—contracting and becoming harder, as he recovered his general health—that hopes were entertained of a complete cure. It was noticed that, during his fatal illness, though the cough was very violent, it did not in the least affect the size of the tumour. As stated above, no *post-mortem* examination could be obtained.

In the remarks which the narrator of the case has appended, he discusses chiefly the operation of Brasdor (or Wardrop), and mainly addresses himself to the question whether it is desirable to tie the carotid alone, the subclavian alone, or both arteries simultaneously. He resolves this question in favour of the ligature of the carotid only, for the same reason which has led the present reporter to incline to the same conclusion; viz., because it is the treatment which allows a more logical explanation of its action on the sac than the ligature of the subclavian does, inasmuch as the coagulation of blood which usually occurs in the whole carotid artery after successful ligature may be expected to extend into the portion of the sac through which the blood going to the neck has been circulating. Strangely enough M. Sabatier believes that this consideration has been hitherto overlooked. He says, "Lastly, and this is a circumstance to which the authorities do not allude, the portion of the carotid below the ligature will be obliterated in all its extent, and the coagula reaching the inner wall of the sac will become the origin of new coagulation, in virtue of the old adage that fibrin produces fibrin." Evidently, M. Sabatier has never read the *Lectures on Aneurism*, delivered, by the present writer, at the Royal College of Surgeons, and published in French in

the *Gazette des Hôpitaux*, in which this fact is dwelt upon at a very great length. Nor has M. Sabatier had the opportunity of perusing the very interesting and important cases of double distal ligature which Mr. Barwell has recently published. These cases do unquestionably tend to restore our confidence in that method, and to predispose us to admit that the ligature of the third part of the subclavian may have some curative influence, however difficult it may be to account for it theoretically. In one of Mr. Barwell's cases, in which the patient died some months after the operation, of bronchitis, very much as M. Desgranges's patient did, Mr. Barwell states (*Med.-Chir. Trans.*, vol. lxi. p. 31) that the whole of the subclavian artery was obliterated; and in a second case (*Ibid.*, vol. lxii. p. 395) where the patient was still alive, he believes that the same result was obtained. The latter case, however, is obviously inconclusive; and in the former the *post-mortem* examination was confessedly somewhat imperfect, and the preparation did not show any definite anatomical proof of a result so diametrically opposed to all our other experience of the phenomena of the collateral circulation after ligature, since, beyond all doubt, the ordinary and usual effect of tying the third part of the subclavian would be, not to obliterate, but to insure the patency of, the first part, through which the circulation for the arm must pass; and if the carotid were also tied, one would expect that the circulation through the thyroid axis would be greatly increased, and, therefore, the first part of the subclavian proportionately dilated. Nevertheless, no one is more prepared than the present writer to admit that theory must bow to experience; and if the results of the latter are so decisively in favour of the simultaneous double ligature as Mr. Barwell's experience seems to indicate, we must be prepared to adopt it. Meanwhile, such cases as this of M. Desgranges' are valuable, as showing what may be effected by the ligature of the carotid only, though it is a great pity that no necropsy was obtained.

The suggestion that M. Sabatier makes is worth bearing in mind; whether, in cases otherwise hopeless, it might not be worth while to try the effect of simply exposing the tumour by dissection, without tying any vessel; recollecting the well-known case under the care of Porter, where consolidation and apparent cure followed in a subclavian aneurism, though the innominate artery, when exposed, was so diseased that the surgeon did not venture to put a ligature on it.—*London Med. Record*, April 15, 1880.

Case of Arterio-venous Aneurism Cured by Pressure.

MEDINI relates (*Bulletino delle Scienze Mediche*, January, 1880) an interesting case of traumatic aneurism of the common carotid, involving also the internal jugular vein, in which a complete cure was effected by steady long-continued pressure. The patient had received a stiletto-wound in the left side of the neck; and, when first seen, the tissues around the seat of injury were enormously swollen and infiltrated with blood. The diagnosis admitted of no doubt, as all the signs of arterio-venous aneurism were well marked. Treatment by cold, absolute rest, and digitalis, having failed, and the statistics of the operations hitherto performed for the cure of arterio-venous aneurism in this situation being very unfavourable, the author determined to have recourse to direct pressure. He employed for this purpose Rizzoli's horse-shoe compressor, which he considers to offer certain advantages over Signoroni's, one being that the pads are movable and can be applied in any direction. After a few days of this treatment, the improvement was so marked that the patient anxiously seconded the efforts of the surgeon, and kept up regular pressure by means of the screws attached to the pads, which he manipulated himself. After five weeks he left the hospital much improved, though the aneurism still existed. The author therefore adapted a semicircular pad

with two cushions to the part, and directed the patient to wear the instrument continuously. The result was most satisfactory. When next seen, all traces of the tumour had disappeared, save a small hard lump of the size of a hazel-nut, which was probably the obliterated jugular vein. The steps in the process of cure had probably been (1) closure of communication between the vein and artery; (2) obliteration of the vein, by which the aneurism became a simple arterial one, (3) which eventually became consolidated and absorbed.—*London Med. Record*, April 15, 1880.

Nerve-Stretching.

AMBONI records (*Annali Univ. de Medicina e Chirurgia*, Jan. 1880) a case of obstinate neuralgia of the upper arm with contraction of the forearm, and pain radiating over the whole upper half of the left side, successfully treated by stretching the nerve-trunks of the brachial plexus. The patient, a female, was 39 years of age, and the affection had lasted over a year, having commenced shortly after an extensive abscess in the axilla had ceased to discharge. Every method of treatment had failed to give relief, and as a last resource the author determined to cut down on the brachial plexus, and expose the nerves forming it. The operation was one of considerable difficulty, and lasted over an hour. Twenty ligatures were applied, four of which were on veins. The connective tissue around the nerves was carefully removed, and their trunks exposed and stretched; a drainage-tube was then inserted, and the wound closed with sutures. The operation was scarcely finished before its good effects became evident. The patient could at once move the fingers and forearm, and was quite free from all pain. The wound healed without any bad symptom; and, up to the time of writing, seventy-four days after the operation, there has been no return of the neuralgic pains.—*London Med. Record*, April 15, 1880.

Sutural Junction of Wounded Nerves.

In a paper read before the Berlin Medical Society on January 14th of the present year, and published in the *Berliner Klinische Wochenschrift*, No. 8, BARON VON LANGENBECK gives the details of a case, the subject of which, a labourer aged 31, had received severe injuries through the fall of a ceiling. The patient, when first seen, presented a large scalp-wound in the frontal region, and was unable to stand in consequence of an injury, probably fracture, to the lumbar portion of the spine. The integument over the outer surface of the right arm in its lower half was much bruised, and there was complete paralysis of the extensors of the hand and fingers on the same side, with loss of sensation over the back of the hand. The bruised portion of integument above the elbow subsequently sloughed. At the end of the second month the patient had recovered from the more severe injuries, but still remained under treatment in consequence of the following condition of the right upper extremity. The bruised and necrosed portion of integument had been replaced by a tender cicatrix, which was situated over the spot where the median nerve passes between the triceps and brachialis anticus muscles, before taking its course along the forearm. The extensor muscles of the hand and fingers were completely paralyzed, and the affected muscles failed to react both to the constant and the induced currents. There was loss of sensibility in the skin over the back of the hand and forearm. This condition was regarded as the result of a solution of continuity in the median nerve, produced at the time of the separation of the sloughing portion of skin from the outer surface of the arm. An incision having been made through the cicatrix, the divided nerve was exposed, and its two extremities, separated from each

other by an interval of about two centimetres, were dissected out from the surrounding cicatricial tissue, trimmed with scissors, and then brought together by a catgut suture. Considerable difficulty was experienced in bringing the free ends of the divided nerve into close contact, and fears were entertained that the suture would speedily tear itself away. On the twentieth day, however, after rapid healing of the wound, which had been dressed antiseptically, there was decided reaction of the extensor muscles to the induced current, and in the course of a few days the patient was able to extend his fingers. The patient, when discharged at the end of the seventh week, could move his fingers very freely, and also extend his hand, though he could not raise it beyond the horizontal position. In his remarks on this case, Dr. von Langenbeck states that the fact of a divided nerve, when joined by suture, healing by primary union and rapidly regaining its functions, has been proved beyond doubt by the recent experiments of Gluck on fowls. According to this observer, the restoration of conduction in a wounded nerve depends on the formation of an intermediate substance consisting of granulation tissue, which is deposited in small quantity when the perineum remains intact, and in abundance when a completely divided nerve has been joined by suture. In this intermediate substance Gluck found, on the fourth day after section of a large nerve, large granular spindle-cells, which are arranged in rows and run together at their elongated extremities. These spindle-cells, which Gluck regards as glanglion-cells, as they are darkly stained by osmic acid, are converted into fibres which connect the axis-cylinders at the extremities of the divided nerve, and their protoplasm becomes differentiated into axis-cylinders and medullary substance. Clinical observations on the results of suture of nerves in man have not hitherto been so conclusive as the experience of trials made on animals. In the former, the suture was almost always applied to a sensory nerve, and the determination of such results as may be thus attained must necessarily be both difficult and doubtful. It is not easy to make out to what extent the sensibility of the region supplied by the wounded and sutured nerve has been restored, and moreover, there is likely to be deception on the part of the patient. The author states that, in most of the cases hitherto recorded of sutural junction of nerves, the required results have been doubtful or altogether wanting. The efficacy of sutural junction should be more satisfactorily determined by dealing with a motor nerve, because in such case the surgeon is able, by the use of the induced current, to make out the extent of the paralysis caused by the injury to the nerve, and also the extent to which the functions of the wounded nerve have been restored after the application of the suture. Von Langenbeck's case is therefore of value as proving that, by bringing together the ends of a divided nerve with a suture, union by primary intention may take place, and the function of the trunk be restored.

This, the author states, is the third reported case of secondary suture of the median nerve. In one case reported by Letiévant, sutural junction of a wounded median nerve was attempted, but without success, two years and a half after the receipt of injury. In the remaining instance, Esmarch applied a suture to the same nerve sixteen months after its division by an extensive wound. In this case the operation was followed by partial success. The best material for the suture for a wounded nerve trunk the author believes to be catgut. This causes less irritation than silk or wire, does not need removal, and does not interfere with the process of primary union. This case differs from other cases of divided nerve trunk hitherto reported, in the fact that no swelling was observed at either of the separated extremities of the nerve. The author attributes this to the fact that the median nerve had not been divided by sudden and violent injury, but had gradually given way during the separation of a slough. Another point of

interest in this case is the fact that regeneration of the nerve-tissue and restoration of the function of the median nerve so speedily followed the operation, although, as was found on microscopical examination, no nerve-elements existed in the small portions removed from the free ends of the nerve by scissors. In all previously recorded cases of suture of nerves, the centripetal propagation of impression was the first to be renewed. In Dr. von Langenbeck's case the opposite result was observed, the anaesthesia of the integument on the dorsum of the hand having persisted long after the movements of the extensor muscles had been almost completely restored.—*London Med. Record*, April 15, 1880.

Modified Amputation of the Foot.

In a thesis upon Chopart's amputation of the foot, Dr. Duchamp,¹ after a careful *résumé* of the bibliography of the subject, gives in the appendix the mode of procedure suggested by Dr. LEON TRIPIER, of Lyons. This, however, cannot be called a modification of Chopart's amputation, as the author implies. It is rather a modification of the subastragalar, as the incisions are almost identical. But by whatever name it may be called, it is an operation well worthy of consideration, in cases of injury or disease, when the anterior portion of the foot has to be sacrificed.

Chopart's amputation has been perhaps universally looked upon with considerable disfavour, on account of the painful stump and tilting of the heel which follow sooner or later in many cases; and the cause of this is no doubt primarily the loss of the front half of the arch of the foot—a loss which it is extremely difficult to replace by mechanical means. The immediate cause does not appear to be so much any contraction of the tendo Achillis as of deeper tendons, and especially ligamentous structures; the latter of which are, according to Max Schede, dragged upon by the tendency to backward slipping of the calcaneum. Examining the static conditions of the foot, M. Leon Tripier noticed that a horizontal plane, on a level with the sustentaculum tali, would divide the calcaneum at right angles to the axis of the limb, and expose a large surface of support; and he proposed, therefore, an operation after the following plan, in place of the usual method of Chopart's amputation.

The flaps are to be marked out by two elliptical lines, the first extending from the outer part of the tendo Achillis at its insertion, then passing two finger-breadths below the outer malleolus, and the same distance above the tuberosity of the fifth metatarsal bone, to end on the inner side of the extensor proprius pollicis tendon, opposite the posterior extremity of the first metatarsal bone. This is to be the dorsal flap. The plantar marking extends from the last-named point downwards and forwards to about an inch in front of the base of the first metatarsal bone, in the sole of the foot, then obliquely across the bases of the metatarsals to the outer side of the foot, and so to the starting-point at the outer side of the tendo Achillis.

The stages of the operation M. Tripier divides into four: 1. Section of the skin; 2. Division of the subcutaneous tissues; 3. Division of muscles and tendons; 4. Disarticulation and section of the bone. With reference to the division of the muscles and tendons, he divides first the dorsal tendons along the line of incision, then the plantar muscles, similarly, dissecting the latter flap back by keeping close to the bones. He then disarticulates as for Chopart's amputation. Then he detaches the periosteum from the calcaneum, as high up as the

¹ Etude sur l'Amputation de Chopart. Par le Dr. S. Duchamp. Paris, Baillière et Fils. 1879.

level of the sustentaculum, and saws through the bone horizontally from the inner side immediately below that process. This being done, he rounds off the projecting anterior angle of the bone. The two plantar arteries and the dorsalis pedis have to be twisted or tied, and he advises the operator to seek the posterior tibial nerve in the inner flap and remove it as high as possible, so as to avoid subsequent neuroma, which proves so troublesome after Chopart's amputation. After carefully closing the wound, and placing a drainage-tube through it, he immobilizes the stump by means of a silicate bandage, which extends to the knee.

The incision, according to the author, resembles the inner plantar flap adopted by Jules Roux in tibio-tarsal disarticulation, but the whole operation appears to us rather a modified and much improved subastragalar amputation. The horizontal section of the calcaneum has a marked advantage over the subastragalar; for it not only preserves a greater length of limb, but places the stump in better static condition. The astragalus has its lower surface oblique, being directed downwards and forwards, and there would therefore follow after a subastragalar amputation a tilting of the astragalus and a dragging upon the ligaments of the tibio-tarsal articulation. Besides this, the base of support is larger after section of the calcaneum, whence greater solidity in such a case. Lastly, after subastragalar amputation the astragalus is no longer connected with muscles and tendons, but with the section of the calcaneum the tendo Achillis is preserved, and the lateral tendons being in contact with the detached periosteum there is as much freedom of movement as after Chopart's amputation, without the inconveniences of that operation, seeing that the equilibrium of the stump is secured.

The new operation has a further advantage over Chopart's in requiring less plantar flap, and also in making it possible for the operator to see the condition of the calcaneum; and this is undoubtedly of considerable importance, especially in cases requiring amputation for disease, although certainly the astragalus is often affected earlier than the larger bone. If the calcaneum be too much diseased, then a subastragalar or higher amputation can be immediately performed. The author makes the following experiment upon the dead subject. If the cut surface of the calcaneum be applied to the horizontal plane of a table, and strong vertical pressure be applied on the tibia from above, no movement is seen at the sides of the remaining bones. If, in this position, the ankle be uncovered, it is possible to divide one by one all the ligaments without producing any tendency to displacement of the bones. One may even separate completely the tibia from the astragalus left on the table, then replace the tibia in its normal position, and make vertical pressure upon it without any tendency for the tibia and astragalus to become displaced. The only movement one can find is a slight gliding downwards and inwards of the head of the astragalus, but the soft parts, which are thick here, prevent any displacement of the astragalus.

The operation has not yet been performed on the living subject, but we are glad to give publicity to the proposal of M. Leon Tripier. The subastragalar amputation is one which might with advantage be more practised than it is, as certainly affording better prospect to a working man than Chopart's operation; and in two which the reporter had under his hands, the results were in every way good. But the advantages of M. Leon Tripier's operation appear likely to make this a recognized and valuable addition to the surgery of the foot.—*London Med. Record*, April 15, 1880

Loose Bodies in Joints.

Professor H. FISCHER, of Breslau, has recently published (*Deutsche Zeitschrift für Chirurgie*, Band xii. Heft 4, 5) the results of some inquiries as to the origin of articular loose bodies (*Gelenkmause*). Although the histology of such

bodies had been thoroughly investigated by Virchow, and many surgical authors had discussed their diagnosis and treatment, very little had been done with respect to their etiology.

The author deals first with loose bodies in healthy joints. These are invariably the result of injury. Cases of this kind are not of frequent occurrence. The joint usually affected is the knee. A loose body may be produced through injury in various ways. A portion of articular cartilage may be torn away, and set free in the joint. Many surgeons hold that loose bodies are very frequently, if not always, produced in this manner. The author records an instance of a loose body appearing in the left knee shortly after an injury to this joint. The body was removed by operation, and found to be composed of articular cartilage. An osseous portion of an epiphysis may likewise be set free through injury, so as to form a loose body. This event is much less frequent than the separation of a portion of articular cartilage. To the ten cases that had been previously recorded, the author adds one from his own practice, in which, after the death of the patient from severe injuries to the head and liver with contusion of the left elbow, a detached piece of the olecranon was found as a loose body in this joint.

Since it cannot be doubted that a loose body may be produced through the breaking away of a cartilaginous or an osseous portion from the articular extremity of a bone, such an event might be fairly assumed in clinical practice when, in the first place, the development of the loose body can be referred to a decided and severe injury followed immediately by considerable disturbance of function, and subsequently by symptoms of loose body in the joint; when, in the second place, it can be made out that before the injury the joint had been sound and capable of performing all its functions; when, finally, the loose body, removed by operation, resembles in its anatomical and histological characters such a piece of cartilage or bone as might have been broken away and set free in the affected joint.

John Hunter held the view that the formation of a floating articular body is usually preceded by hemorrhage into the joint, and that the body itself is a mass of hardened and calcified coagulum. It has been pointed out by Virchow that many articular loose bodies indicate, in their structure, some such mode of formation as this, and are really composed of coagulated portions of extravasated or exuded fluid. According to Professor Fischer, who has observed three instances of this kind, the loose bodies formed from coagulated blood and fibrin are not permanent growths. They seldom become incrustated, and usually, after having existed for some few months, and having caused the common articular disturbances, spontaneously disappear.

That a large foreign body, as, for example, a bullet, may after penetrating a joint, remain there without causing any inflammatory mischief, has been proved by an observation by Volkmann. This, however, is a very rare event, as such a body usually sets up much irritation and reaction, and demands prompt removal. Small foreign bodies may penetrate into the osseous or cartilaginous structures of a joint, and become encapsuled. In a case reported by Mr. Shaw, a portion of a needle formed the nucleus of a floating body of cartilage that was removed from the knee of a young woman. Professor Fischer mentions an instance in which a small portion of a saw used in Ogston's operation was broken off, and remained in the knee-joint without setting up any irritation.

The second group of articular loose bodies comprises all such as are found in the interior of diseased joints, being either products of inflammation or the results of changes in such products. As was first pointed out by Ambroise Paré, these loose bodies may be formed in cases of *hydrops articuli* through partial coagulation of the accumulated synovial fluid. In an articular affection described by

Volkman under the designation of *hydrops fibrinosus articuli*, the affected joint is found to be filled with floating bodies of different sizes, many of which are supposed to be pure concretions. This affection has almost invariably been observed in the knee. One case, however, is recorded by Professor Fischer, in which the wrist was the affected joint. In an instance of this disease observed by Cruveilhier, the floating bodies had been regarded as hydatids. Loose articular bodies may be formed either through direct osseous transformation of the synovial membrane, or, without the joint, in the fibrous portion of the capsule. The formation of floating bodies through conversion of portions of the synovial membrane into cartilage or bone is of not unfrequent occurrence, especially in joints affected with chronic *arthritis deformans*. Laennec was the first to point out that such bodies may also be developed external to an articulation, and that they gradually grow inwards and towards the interior of the capsule, becoming enveloped in a prolongation of the synovial membrane. Finally, they may be broken off in some movement of the limb, and then become free in the articular cavity. The floating bodies thus developed present a characteristic form and structure. They are usually biconvex, one surface being formed of very hard bone, the other surface of hyaline cartilage. The affected joint presents very little of other change, save an increase in the amount of synovia.

Rokitansky first showed that loose bodies might be formed in diseased joints through over-growth and pathological metamorphoses of synovial tufts. It is well known that enlargement of these tufts frequently occurs in association with inflammatory changes in a joint. Cartilage-cells are formed in the swollen and knobbed processes of synovial membrane, which cells form firstly a chondroma, and subsequently become calcified or form bone. A growth of this kind may, like one produced in or external to the synovial membrane, become detached and set free in the joint. Rokitansky's views as to this mode of origin of loose bodies have been supported by Luschka and Virchow. The loose bodies thus produced have each usually the shape of a bean or a kidney, and present three convex surfaces and one short concave surface; they are smooth, firm, and elastic, and vary between the size of a small bean and that of a walnut. Each body is composed mainly of hyaline cartilage, with a few dry spots of calcification and small deposits of porous bone; the cortical portion presents fibro-cartilage. In some rare cases there is a small irregularly shaped cavity in the centre of the loose body, which cavity is filled by viscid synovia-like fluid. A loose body of this kind often presents a persistent stalk, or, more frequently, a trace of such. The body, when dried, shrinks into a small shapeless mass with uneven surfaces. The development of the loose bodies from tufts of synovial membrane is usually preceded by some inflammatory affection of the joint that is associated with intra-articular effusion of fluid.

The final variety of loose articular body is that produced by the breaking away, into the cavity of a joint affected with chronic *arthritis deformans*, of a piece of degenerated or pathologically developed bone, or of an enchondrosis. This form is rarely met with. The loose body thus produced, though usually quite free, is seldom observed during the life of the patient, in consequence of its symptoms being obscured by those of the chronic inflammatory condition of the joint. Such specimens as have been described had been found during *post-mortem* examination. The growth may consist either of true bone covered by a layer, more or less thick, of cartilage, or of cartilage studded with osseous deposits. The loose body thus formed has a very irregular form, is usually large, and often presents a distinct trace of fracture on one of its surfaces or margins. In some very rare instances, the broken off piece of bone or cartilage remains in contact with its former point of attachment, and becomes loosely connected with this by means

of a kind of false joint. The author describes two pathological instances of this condition.

The treatment of loose bodies in joints, Professor Fischer states in concluding his article, has, through the grand and inestimable reformation effected in surgery by the antiseptic method, attained a final solution. Whilst formerly the various methods of operation were anxiously compared and considered, at the present day no surgeon hesitates to prefer over all other proceedings that of incision into the affected joint, and immediate extraction of the loose body, under antiseptic precautions. Professor Fischer operates in such cases without the use of the spray, but is careful to cleanse with solution of carbolic acid the seat of the operation and all the required instruments, and in most instances treats the joint with Lister's dressings. The joint is not washed out and is not drained; the wound is closed by suture. M. Lucas-Championnière has reported a case in which the joint was washed out with a five per cent. solution of carbolic acid, and then drained. No marked local or general reaction followed this practice. Professor Fischer thinks that injection and drainage are unnecessary in this operation, since the instruments used hardly reach the interior of the joint. No serious local or general symptoms have followed the operation in any of the author's cases; and in all, with but one exception, the joint remained movable and capable of performing all its functions. In most of the cases, some swelling and tenderness of the joint were noted on the third day. These phenomena usually disappeared in the course of a few days, either spontaneously or after the removal of the sutures, and a free discharge of secretion from the wound. The average duration of such treatment is one month. The surgeon, Prof. Fischer remarks, should always bear in mind the caution given by M. Tillaux against rashly making an opening into the articulation of the knee; but, with the brilliant results of Lister's method, it is hardly necessary to warn the patient that the removal of a loose body from this joint is a very serious operation. Diseased joints tolerate operative interference much better and more readily than joints that are quite sound.—*London Med. Record*, April 15, 1880.

Midwifery and Gynæcology.

The Administration of Ergot in Labour.

DR. GLYNN WHITTLE (*Dublin Journ. of Med. Sci.*, Feb. 1880) thinks that there is no doubt that ergot judiciously administered will often save a lying-in woman from the necessity of a forceps delivery. If there is reason to fear post-partum hemorrhage, ergot should always be given before the child is born. The fifteen- to thirty-minim range of the Pharmacopœial liquid extract is practically useless, but there is a limit to the dose which it is desirable to give. Two fluidrachms may be mentioned as a maximum, but occasionally it is justifiable to repeat this quantity. Dr. Whittle also lays down the following rule in regard to the administration of ergot. Never administer ergot until the labour is so far advanced that it could, if necessary, be easily finished with the forceps. In cases where tonic uterine contraction follows, threatening the life of the child, but not terminating the labour, recourse may then be had to the forceps. If the placenta happens to be morbidly adherent, the danger of the complication may be greatly augmented by post-partum increased uterine contraction, due to the influence of ergot, and of such a case Dr. Whittle quotes an instance which occurred in his own practice.—*Practitioner*, May, 1880.

On the Alleged Dangers of Intra-uterine Injections of Perchloride of Iron in Cases of Post-partum Hemorrhage.

Dr. FREDERICK POLLARD, Senior Assistant-Physician to the Liverpool Infirmary for Children, has analyzed (*British Med. Journal*, April 24 and May 1, 1880) all the British cases of death following one injection of solutions of perchloride of iron into the uterus for primary post-partum hemorrhage which have been reported in the last ten or twelve years. He finds that puerperal fever is not one of the dangers to be apprehended from the use of the perchloride. But there are two accidents which apparently may be caused by the injection. One is the forcing of some of the fluid along the Fallopian tubes to the peritoneal cavity, causing severe pain and fatal shock, which probably (though not certainly) occurred in one reported case (Dr. Bantock's). The other is the entrance of the ferruginous solution into the uterine veins, causing phlegmasia dolens, or even giving rise to cardiac or pulmonary embolism and sudden death. This accident may have been the cause of death in three of the cases described; but there is no doubt that it can with almost complete certainty be avoided; firstly, by being most careful to keep open the cervix with the fingers, so as to allow the free egress of the fluid injected; secondly, by injecting very slowly and gently, allowing the solution to trickle down the sides of the uterus, and by avoiding all unnecessary force. To attain this end, it is desirable to employ a delivery-tube, which, instead of having one large terminal aperture, has a number of small lateral ones, so as to send a coarse spray rather than a full stream against the interior of the uterus; and attention to these precautions will probably reduce the risks of the operation to a minimum.

But even if these dangers were greater than they are, we should not, in his opinion, be justified in giving up the operation altogether. It has undoubtedly saved many lives which were fast ebbing away, when nothing else would stay the perilous flux. If we are to discard every operation which is itself sometimes fatal, what would become of ovariectomy, lithotomy, or amputation of the breast? A woman flooding to death is in far more immediate peril than are those for whom the operations just named are performed. Then why should she be denied a remedy, which has saved many women's lives, all other means having failed, because it may not be absolutely free from danger? Dr. Pollard believes that every practitioner ought to carry this, or some equally efficient styptic (if such there be), to every case of midwifery to which he is summoned. This conviction has been forced upon him by the perusal of some of those terrible cases where life has rapidly ebbed away before there was time to fetch any assistance, or any remedies beyond what the attendant had with him.

Dr. Pollard's experience of the operation, though not extensive, has been altogether favourable. He has used it in cases where injections both of hot water and of vinegar had failed, and where to all appearance the patients would inevitably have died without the iron.

He says, "in conclusion, then, I believe that there are some cases of *post-partum* hemorrhage of so intractable a character that the injection of a solution of the perchloride of iron into the uterus affords the only chance of saving the patient's life; and for this reason I consider that, of all the numerous benefits which Dr. Barnes has conferred upon obstetric science and practice, not the least important is the introduction of the method of treatment whose alleged dangers I have in this paper endeavoured to estimate."

Roseola Uterina.

At a recent meeting of the Obstetrical Society of Dublin (*British Med. Journal*, Feb. 14, 1880), Dr. KIDD read a paper on this disease, which, though by no

means unfrequent, had never, as far as he could learn, been described in books. The disease occurred most frequently in patients in childbed, but also followed small operations on the uteri of women who had never been pregnant. He thought it occurred in about three per cent. of all the midwifery cases he had attended. About the third or fourth day after delivery, the patient complained that the skin of the abdomen was irritable and itchy, and, on examining it, an eruption was found very similar to that of scarlatina; next day, the axillæ became affected in a similar way; thence it extended over the chest and neck, but not affecting the face, and down the arms to the hands. The thighs, legs, and back became also covered. During all this time there was no constitutional disturbance, no fever; the pulse and temperature, tonsils and appetite, milk and lochia remained normal. On the second or third day after its first appearance it began to disappear, fading first in the places last affected. Dr. Kidd considered that the erythema was due to nervous derangement, and explained the phenomena on that hypothesis. The nerves supplying the internal surface of the uterus were at pregnancy enlarged; the long-continued irritation of those exposed nerves (after delivery) exhausted the centres with which they were connected, and hence the vaso-motor nerves proceeding from those centres were paralyzed for the time being; the arteries controlled by them relaxed, and allowed an excess of blood to the capillaries of the skin, hence redness and erythema. As soon as the irritation of the peripheral nerves ceased, the centre recovered, and the vaso-motor restraint again contracted the capillaries, and the erythema disappeared without any constitutional disturbance.

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Indications for Treatment of Versions and Flexions of the Uterus.

B. S. SCHULTZE remarks (*Archiv für Gynæk.*, Bd. xv. Heft ii. 1879) that the views of authorities upon the mechanical treatment of alterations in the position of the uterus differ as much now as they did thirty or forty years ago. He recapitulates his views as to the importance of the folds of Douglas in conditioning the occurrence of forward or backward displacement. Shortening of these folds from inflammation pulls the cervix backwards and upwards, and so exposes the posterior aspect of the body of the uterus to the intra-abdominal pressure, which, driving the body downwards, produces antelexion. Conversely, relaxation of the folds of Douglas allows the cervix to sink downwards and forwards, and the intra-abdominal pressure to fall on the anterior surface of the uterine body, and hence retroflexion. If the uterus is more rigid than usual, either through past or present metritis, then anteversion or retroversion is the result respectively, instead of the corresponding flexion. This he holds to be the etiology of the great majority of cases. Occasionally he thinks anteversion or antelexion arises from peritoneal adhesions between the fundus uteri and the bladder, and retroversion or flexion from parametric fixation of the cervix uteri in front. He does not hold, like many authors, flexion to be a source of more suffering than version. The symptoms especially credited to flexion are dysmenorrhœa and sterility, which are attributed to narrowing of the internal os, and consequent hindrance to the exit of blood and the entry of semen. There is no doubt that the acute flexion of the infantile type often coexists with infantile narrowness of the canal and the orifices; also that with a sharp flexion uterine catarrh, especially in women who have ceased to menstruate, favours the occurrence of stenosis and obliteration of the os internum. But in the majority of cases of flexion of the uterus during sexual life the diagnosis of stenosis only means that there is difficulty in getting a too rigid sound past the point of flexion. Flexion of the uterus does not *per se* produce stenosis. As to sterility, in the majority of women in whom the cause of it is on the male side, the uterus is

anteflexed, because in the majority of healthy women the uterus lies in that position. He does not think flexions without effect in producing sterility, but that sterility in cases of flexion is most often due to coexisting complications, and is only seldom a mechanical result. In cases of shortening of the folds of Douglas, when the inflammation has entirely passed off, and not the slightest tenderness of the part remains, the author has treated the resulting anteflexion by methodical stretching of the folds, by pulling the vaginal portion downwards and forwards. But this indication can seldom be carried out, because the part in question usually is sensitive, and such traction may then rekindle inflammation. In such cases, on the contrary, great relief may be obtained by pushing the vaginal portion yet further backwards, by means of a figure-of-8-shaped pessary. By this the anteflexion is increased, but the folds of Douglas are protected from further tension, and thus not only are the pains relieved, but the disappearance of inflammatory processes is favoured. Reposition of the displaced uterus by the finger or sound he looks upon as useless, for the flexion returns when the replacing force is removed. Vaginal pessaries he thinks only give relief by fixing the cervix and diminishing the tension of Douglas's folds. Intra-uterine stems certainly straighten the uterus, but the position in which they keep the uterus is as far removed from the normal one as is an anteflexion. That they have been followed by good results he attributes to treatment of other kinds simultaneously carried out, and possibly to contraction of the uterus excited by the presence of a foreign body. In cases of displacement the author recommends treatment of the accompanying metritis and parametritis. These conditions are often caused and kept up by accompanying endometritis, and the retention of catarrhal secretions in the uterine cavity. This is best treated by dilatation of the cervix, and the washing out of the uterine cavity with a 2 per cent. solution of carbolic acid. The result of treatment on these principles is, that the symptoms will disappear, even though the shape of the uterus be unaltered, menstruation will become painless, and the patient will conceive with an acutely anteflexed uterus. With retroversion and retroflexion it is quite different. Here the displacement is usually not the result but the cause of the morbid phenomena, which must be treated by mechanically raising the uterus to its normal position. In the beginning it may be enough simply to use means which excite uterine contraction. But if the displacement be pronounced, the uterus must be replaced by bimanual manipulation, and kept in its proper position by a pessary. If reposition in this manner be difficult, he holds it better to anesthetize the patient, by which we can not only replace the uterus, but accurately ascertain the condition of the pelvic organ, than to replace the uterus by means of the sound. The latter proceeding is often possible, but much harm may be done by it. No pessary can bring the uterus into its normal position. By manual reposition under anesthesia, it may be possible to break down adhesions which retained the uterus in its abnormal position. He has done this without bad results. The pessary required is one which shall draw the cervix backwards, which, being done, the abdominal pressure will keep the uterus in a state of anteversion. He uses one of the shape of a figure 8, the cervix being embraced and carried backwards by the posterior ring, and one like a Hodge, the anterior end of which, instead of curving downwards, is carried so far upwards and backwards, and is so widened, that it presses back the cervix. He uses the latter when the vaginal walls have not sufficient tone to retain the former. The bowels must be kept regular; the vagina must be frequently washed out, and over-filling of the bladder must be avoided. Nutrition must be improved; the best general tonic, where possible, being sea bathing. While wearing the pessary, pregnancy often takes place, which is a favourable occurrence for the patient, for with care during the lying-in the recur-

rence of the displacement may be prevented. The inflammatory complications of the retroverted and retroflexed uterus require no special treatment, the correction of the displacement will cause them to disappear. Backward displacements of the uterus are those in which mechanical treatment is followed by the most strikingly beneficial results. He has used intra-uterine stems in the treatment of retroflexion, but has obtained better results without them. He believes the time is not far off when his hope, expressed seven years ago, that these instruments may come to be seen in historical collections only, will be fulfilled.—*Obstetrical Journal of Great Britain*, April, 1880.

Removal of Uterine Fibroids by Laparotomy.

At a late meeting of the Obstetrical Society of London (*Lancet*, May 8, 1880), Mr. KNOWSLEY THORNTON raised the question of the removal of uterine fibroids by laparotomy. He not only regarded the removal of uterine fibroids by abdominal section as justifiable in certain cases, but believed that the future of these operations would be in no way second to that of ovariectomy. The objections to operating by laparotomy for fibroids were—(1) less fatality of fibroids when left alone, as compared with ovarian tumours; (2) the greater frequency of their relief or cure by medical, expectant, or milder surgical treatment; (3) the greater danger of the operations for their removal as compared with ovariectomy. He pointed out how often dangerous operations were undertaken for the relief of deformity, and that operations of convenience were now much more safe and justifiable, thanks to Professor Lister's method. The following proposition was advanced for discussion: Is it justifiable to make an exploratory operation with perfect antiseptic precautions in any case of fibroid tumour of the uterus, which has resisted medical treatment, and which is either endangering life or preventing the subject of it from fulfilling the ordinary duties of her sex and position? The great difficulty lies in the present uncertainty of the diagnosis between the varieties of uterine fibroids. Complete records of two cases were then given, the first a complete hysterectomy, with removal of both ovaries; the second, removal of sessile fibroids and one ovary without opening the uterine cavity. Both patients recovered without fever and without any untoward symptom. Three classes of cases were defined, each having a different amount of difficulty and risk. The author thought that the term hysterotomy should be given up, and that of hysterectomy adopted, but limited to the complete cases, in which the whole of the supra-vaginal part of the uterus was removed.

Dr. BANTOCK related two cases in which he had removed fibroid tumours. In the first a small tumour weighing two pounds was removed with a part of the uterus. The pedicle formed by the uterine body was ligatured and dropped. Death occurred from septicæmia, due to slight bleeding from the stump, with the establishment of an open canal through the cervix. In the second, an external fibroid weighing twelve pounds was removed, and the pedicle kept external. The patient did well.

Mr. DORAN said that in the fatal case mentioned by Dr. Bantock he had found a deep circular ulcer in the cervical canal corresponding to the ligature. He had examined also a fatal case under Mr. Thornton's care, in which the pedicle of a large fibroid outgrowth had been secured by the clamp. A slough had extended from the stump to the uterus.

Dr. PLAYFAIR believed that the operation had a great future before it, but his experience would not induce him to agree with the statement in Dr. Godson's paper, that it was not more dangerous than ovariectomy. Moreover, a patient

with ovarian tumour rarely lived if left to herself; a person with fibroid rarely died.

Dr. MATTHEWS DUNCAN thought it demonstrated that the operation had a place in legitimate surgery. With increased knowledge of the natural history of fibroids he believed that the use of the operation would be extended beyond what many timid men at present imagined. Such tumours were liable to dangerous diseases and degenerations, liable to induce peritonitis, liable even to induce cancer, especially of the peritoneum. The paramount danger arose from the bleeding which accompanied them and produced a fatal result, he believed, more frequently than was generally supposed.

Mr. THORNTON, in reply, deprecated the fastening of the pedicle up to the abdominal wall as a dangerous practice. He reminded Dr. Playfair that many ovariectomies were incomparably more difficult than the removal of a pedunculated subperitoneal fibroid. He had now operated for uterine tumours twelve times; in ten cases the operations were completed, in two they were not. Four of the former died, and one of the latter. In three complete hysterectomies with removal of both ovaries, he had one death; one hysterectomy with removal of one ovary, death from hemorrhage. In three removals of fibrous cystic tumours, all recovered.

Medical Jurisprudence and Toxicology.

Case of Poisoning from Carbolic Acid used Surgically.

In this paper (*Gazetta degli Ospitali*, February, 1880) DE AGOSTINI reviews at length a number of cases collected from various sources, demonstrating the toxic influence which carbolic acid occasionally exercises when applied as a dressing to large open wounds. He records a case which occurred lately in his practice, and which illustrates very clearly the bad effects which may follow the use of this agent. The patient came under the author's care, suffering from perinephritis, for which, the presence of pus having been diagnosed, a large incision exposing the renal tissues was made in the sacro-lumbar region. A drainage-tube was inserted, and through it the wound was washed out very freely with a one per cent. solution of carbolic acid. The incision was further filled with lint steeped in a two per cent solution of the acid, and the whole covered over with wadding moistened with a similar solution. Owing to the discharge being very copious, the dressings were renewed daily, and the washing out of the parts very thoroughly performed. In spite, however, of the fact that the local appearances were most satisfactory, the patient's general condition did not continue to improve as it had done for the first ten days after the operation. Periodical attacks of fever occurred daily, with a temperature of 39.2 deg. Cent. (102.5 Fahr.), and were followed on one occasion by a violent attack of dyspnoea, with expectoration of a litre of serous fluid, and great prostration. The urine on one occasion was of a dark olive tint. Symptoms of hydrothorax appeared, and a preliminary puncture revealed the existence of fluid, which, however, disappeared within twenty-four hours. Meanwhile, the general condition of the patient becoming steadily worse, and the temperature being always higher after dressing of the wound, it was determined to substitute salicylic for carbolic acid. The effect of the change was remarkable. Within a few hours the temperature fell to 36.4 deg. (97.5 Fahr.) and continued unchanged till convalescence, which took place rapidly; all symptoms of fever likewise disappearing. The

urine showed only in a very slight degree the suspicious dark colour of carbolic urine, but there was a remarkable deficiency of the sulphates. The author believes that carbolic acid intoxication may cause symptoms of collapse, pulmonary oedema, pleurisy, and pneumonia, with a remittent or intermittent type of fever, proving ultimately fatal. The absence or marked diminution of the sulphates in the urine is the most reliable symptom of carbolic acid poisoning, which, as a rule, will be more likely to occur in those exhausted by chronic affections. The chief danger would seem to be in washing out large cavities such as the bladder or pleura, or large superficial wounds. Though such intoxication is rare, its possibility should always be borne in mind, as also the fact that in any given case there may be an idiosyncrasy rendering the patient intolerant of even the smallest quantity of the acid.—*London Med. Record*, April 15, 1880.

Hygiene.

Diphtheria and Sewer Gas.

The influence of sewer gas in the production of diphtheria has not always received the attention it deserves; and it seems, therefore, important to chronicle well-authenticated cases which seem to have no other cause than the introduction of drain-air into the houses invaded by the disease. Two such cases have recently been recorded as occurring at Newquay, in Cornwall, by Dr. BALLARD of the Local Government Board, whose caution as an etiologist is well known. It appears that a new tenant commenced one August to occupy a detached and almost new house, the water-closet of which was drained into a covered and unventilated cesspool in the garden. This house had been previously occupied for a short time by a family who had been quite free from illness while residing there. In one of the bed-rooms there was an open rain-water cistern, having an overflow or waste pipe which discharged itself into one of the drains connected with the cesspool. The only trap it had was a bell-trap on the top of the pipe, which, when subsequently examined, was found to be dry. From this pipe offensive smells had been noticed as proceeding for some time, and from the room they more or less pervaded the house. In the room where the cistern was situated one child slept alone; another child slept with a nurse in a different room. On January 2d the child who slept in the room containing the cistern was attacked with diphtheria and died. No one else in the house suffered. The other fatal case referred to occurred in a good house, which was occupied by a family of whom eight children with the mother slept in a large attic room, beneath the floor of which was a rain-water cistern. The waste pipe of this cistern was trapped with a bell-trap, and it terminated in the soil-pipe of the water-closet. All the children who slept in this room had attacks of diphtheria of varying degrees of severity, and one of them died. On subsequent examination of the bell-trap, it was found to be dilapidated, dry, and quite ineffective to prevent the rise of foul air from the waste pipe and through the floor into the attic.—*British Med. Journal*, April 24, 1880.

MEDICAL NEWS.

National Convention of 1880 for Revising the Pharmacopæia.

The Convention for the sixth decennial revision of the Pharmacopæia of the United States, in accordance with the call of Dr. James M. Morgan, Assistant Secretary, and last surviving officer of the Convention of 1870, met in Washington on Wednesday, May 5th, and was called to order at 12 M. by Dr. Morgan, of Washington.

On motion, Dr. Morgan was elected temporary Chairman, and Dr. D. Webster Prentiss, of Washington, temporary Secretary.

The Chair appointed the following Committee on Credentials: Dr. W. S. W. Ruschenberger, Mr. A. B. Taylor, and Mr. W. S. Thompson. After a recess of fifteen minutes, the Committee reported that some of the bodies which had sent delegates did not come within the literal interpretation of the call for the Convention, and with this explanation it submitted the list of credentials received for the action of the Convention.

Objection having been made to the admission of the delegations which were not within the letter of the call, Dr. Busey, of Washington, in order to perfect the organization of the Convention without delay, moved that the delegates from the bodies which were specifically included in the call for the Convention, to wit, "incorporated State medical societies, incorporated medical colleges, incorporated colleges of physicians and surgeons, and incorporated colleges of pharmacy," and concerning whose status there was no question, be admitted. Adopted.

Dr. Busey also moved that the delegates from the Medical Departments of the Army, of the Navy, and of the Marine-Hospital Service be admitted. Adopted.

Dr. Busey also moved that the delegates from the Medical Society of the District of Columbia, which is incorporated, but not technically a "State medical society," be admitted. Adopted.

Mr. Charles Rice, of New York, objected to the admission of the delegation from the Pennsylvania College of Pharmacy, as it was not incorporated, and he stated that he had a letter from the Secretary of the Commonwealth of Pennsylvania to that effect. On behalf of the College, it was stated that it was regularly incorporated, and its delegation offered an opportunity to inspect its charter, with the seal of the State attached, to any member of the Convention who desired to satisfy himself upon this point. The objection then fell.

Objection was also made to the admission of the delegation from the Philadelphia County Medical Society. Dr. Robert E. Rogers, of Philadelphia, moved that the delegates from the Philadelphia County Medical Society be admitted to the Convention. This motion gave rise to considerable discussion. Strenuous objection to their admission was made on the ground that the Society did not come within the letter of the call for the Convention; and it was urged that, had it been known that these delegates would be admitted, the New York County Medical Society, as well as other county medical societies, would have sent delegations to the Convention. On behalf of the Philadelphia County Medical Society, it was stated that it was an incorporated medical society; that more than a year ago it had written to Dr. Morgan, the only

surviving officer of the previous convention, asking if it were entitled to representation in this convention, to which Dr. Morgan replied that at the Convention of 1870 delegates had been admitted from similar bodies which did not come within the literal reading of the call, and that, from precedent, he believed that the Society's delegates were entitled to admission; that thereupon the Society had appointed a Committee on Revision of the Pharmacopœia, which had prepared a lengthy and carefully considered report which the Society's delegates were instructed to present to the Convention. Dr. Rogers's motion was carried, and, a division having been called, the vote was declared to be thirty-five in the affirmative and twenty-two in the negative.

On motion, a Committee on Nomination of Permanent Officers was appointed, consisting of one member from each body entitled to representation in the Convention, each delegation to name its own member of the Committee, and the Convention then took a recess until 3 P. M.

Upon the reassembling of the Convention, Dr. J. F. Judge, of Cincinnati, on behalf of the Committee on Nominations, presented the following report: For President, Robert Amory, M.D., of Brookline, Mass.; for Vice-Presidents, Dr. S. C. Busey, of Washington, and Mr. P. W. Bedford, of New York; for Secretary, Dr. F. A. Castle, of New York; for Assistant Secretary, Dr. C. H. A. Kleinschmidt, of Washington, D. C. On motion of Dr. Rogers, of Philadelphia, the report was accepted and adopted.

Dr. Amory then assumed the chair, and thanked the Convention for the honour it had conferred upon him.

On motion of Prof. Maisch, of Philadelphia, Dr. E. R. Squibb, of New York, was elected a member of the Convention.

Reports on the Revision of the Pharmacopœia were received from the American Pharmaceutical Association, Massachusetts Medical Society, College of Physicians of Philadelphia, Philadelphia College of Pharmacy, Philadelphia County Medical Society, Pennsylvania Pharmaceutical Association, Maryland College of Pharmacy, National Medical College of Washington, National College of Pharmacy of Washington, and the Louisville College of Pharmacy. Referred to the Committee on Revision to be hereafter appointed.

On motion of Prof. Maisch, it was resolved,

That the Committee on Nominations be instructed to nominate a committee of revision and publication, consisting of twenty-five members; and to report a plan for revising and publishing the Pharmacopœia, and to make provision for the revision of the United States Pharmacopœia in the future.

May 6th. The Convention met at 10 P. M. to receive the report of the Committee on Nominations. The plan for the revision of the Pharmacopœia presented by the Committee was adopted with slight amendment, and is practically the plan proposed by the Committee of the American Pharmaceutical Association. It was decided not to admit therapeutical considerations, statements of doses, or tables, or antidotes to poisons; that the formulæ should be in parts by weight, and should be constructed, when practicable, so that the end quantity of all finished products should be one hundred parts; and that the single alphabetical arrangement be adopted.

The following Committee on Revision and Publication was elected: Drs. Robert Amory, of Brookline, Mass.; F. A. Castle, of New York; D. L. Huntington, U. S. A.; B. F. Gibbs, U. S. N.; Laurence Johnson, of New York; J. F. Judge, of Cincinnati; H. G. Piffard, of New York; W. S. W. Ruschenberger, of Philadelphia; E. R. Squibb, of New York; E. S. Wood, of Boston; T. F. Wood, of Wilmington, N. C.; T. G. Wormley, of Philadelphia; and Messrs. Oscar Oldberg, U. S. Marine-Hospital Service; P. W. Bedford,

of New York; C. Lewis Diehl, of Louisville; Louis Dohme, of Baltimore; Thomas Doliber, of Boston; John M. Maisch, of Philadelphia; G. F. H. Markoe, of Boston; H. B. Parsons, of Washington; J. P. Remington, of Philadelphia; Charles Rice, of New York; A. B. Taylor, of Philadelphia; W. S. Thompson, of Washington; O. A. Wall, of St. Louis.

The Committee on Revision and Publication was instructed to award the publication of the Pharmacopœia to the publishing house offering the best terms, the Committee to hold the copyright, the price of the work to be limited, and the book to be sold through the ordinary trade channels. The authority was also given to publish a supplement to the Pharmacopœia at the end of five years, or oftener if necessary. The Committee was authorized to fill all vacancies which may occur in its body, and to drop, by a vote of two-thirds of the Committee, any member who may neglect to perform the work which he had accepted, or who failed to attend five consecutive meetings of the Committee without valid excuse. The Committee was also empowered to employ expert labour.

It was ordered that the call for the next convention should include all incorporated medical and pharmaceutical societies, incorporated medical and pharmaceutical colleges, and the medical departments of the army, navy, and marine-hospital service of the United States.

The roll of the Convention was then called, and seventy-four delegates responded.

Dr. Hays, of Philadelphia, stated that the "College of Physicians and Surgeons in the City of New York," whose name appeared on the roll, was believed to be a society which had long since ceased to exist, and, therefore, not entitled to representation in the Convention, and he inquired of its delegation if it was an incorporated society which was now in actual existence; a reply was given in the affirmative, and the further consideration of the subject was laid upon the table.¹

Dr. Hays also called attention to the fact that it was desirable and just that the New York Academy of Medicine should be represented in the Convention, and that, while it had a delegation present, it had not yet been formally admitted, either by any special motion or—as it was, like the Philadelphia County Medical Society, neither a State medical society nor a college of physicians—by the general resolution offered by Dr. Busey on the first day. Dr. Busey then moved, and Dr. Hays seconded it, that the delegation from the New York Academy of Medicine be admitted to the Convention, which was unanimously adopted.

The usual complimentary resolutions were then adopted, and the Convention, at 1.45 A. M. on May 7th, adjourned *sine die*.

The arrangements of the local Committee of Reception added much to the pleasure of the visiting delegates. Receptions were held on the evening of the

¹ "The College of Physicians and Surgeons in the City of New York" (which should not be confounded with the well-known College of Physicians and Surgeons (Medical Dep't of Columbia Coll.), New York) does not appear in the New York Medico-Historical Society's Register, nor has it for many years past been represented in the New York State Society. Since the adjournment of the Convention it transpires that it is the New York County Medical Society under another name. (See Proceedings of the N. Y. County Medical Society in *Medical Record*, May 15, p. 551.) It is not apparent why the New York County Medical Society did not openly send its delegates under its own ancient name, with its honourable record, but, at an ordinary stated meeting, should have assumed for ten minutes another name, and thus, by a questionable procedure, disguised itself beyond recognition; nor why the statement, without qualification, was made in argument in the previous day's debate in opposition to the admission of the delegation from another county medical society, that the New York County Medical Society did not and would not send delegates to the Convention.

5th at the Corcoran Art Gallery; on the afternoon of the 6th at the White House by the President; in the evening at the Naval Observatory by Admiral and Mrs. Rogers; and on the morning of the 7th an excursion to Mount Vernon, with a handsome collation on the boat, was tendered to the delegates and their ladies by the physicians of Washington.

Typhoid Fever and Polluted Water.—Upwards of four hundred of the inhabitants of Perth have been suffering from attacks of low fever and diarrhoea, manifestly arising from the pollution of the water-supply. It appears that, while the water-pipes were under repair, a plug came out, and for a short time the water of the river Tay, contaminated with sewage and other city refuse, was allowed to flow into the town pipes. Although the influx lasted only a few minutes, it is calculated that as much as fifty thousand gallons of the public supply were impregnated with noxious particles.—*British Med. Journal*, May 1, 1880.

Use of Arsenic in Manufactured Articles for Domestic Use.—The Council of the Society of Arts, in consequence of the numerous cases of reputed poisoning by arsenical wall-papers and other articles in general use, have appointed a committee to inquire into the practicability of preventing the employment of arsenic in any processes by which it is allowed to remain in finished goods, and to obtain evidence as to the effect a total prohibition of the use of such processes, or the prohibition of the sale of articles produced thereby, would have upon various trades. This is a practical step towards the solution of a question involving large trade interests.—*British Med. Journal*, May 1, 1880.

The Cartwright Endowment.—The late Benjamin Cartwright, Esq., of Newark, N. J., has bequeathed to the Alumni Association of the College of Physicians and Surgeons (Medical Department of Columbia College), New York, ten thousand dollars, with one-half of which to found a "Cartwright prize," for the best essay, containing original work, on some subject connected with the art of medicine or surgery, to be open only to the competition of the Alumni of the College. With the remaining five thousand dollars there is to be established a course of "Cartwright Lectures," to be under the control of the Alumni Association.

Dr. Roberts Bartholow, of Philadelphia, has accepted the invitation of the Councillors of the Alumni Association to deliver the first course of "Cartwright lectures" during the session of 1880-81.

Meetings of Medical Societies.—The thirty-first annual meeting of the American Medical Association will be held at New York on Tuesday, June 1st, under the presidency of Dr. Lewis A. Sayre. The arrangements for the meeting are in charge of an efficient committee, of which Dr. T. Gaillard Thomas is Chairman. The American Neurological Society will meet in the same city on the 15th of June.

The following State societies will hold their meetings this month:—

West Virginia Medical Society, at Parkersburg, June 2.

Massachusetts Medical Society, at Boston, June 9.

Minnesota Medical Society, at Albert Lea, June 15.

New Hampshire Medical Society, at Concord, June 15.

Ohio Medical Society, at Cleveland, June 15.

Medical and Chirurgical Faculty of Maryland.—The eighty-second annual meeting of this body was held at Baltimore, April 13, 14, 15, 1880; Dr. S. C.

Chew, of Baltimore, President, in the chair. The annual oration was delivered by Prof. John W. Mallet, of the University of Virginia. His subject was "The Claims of Science for its own Sake upon the Medical Profession."

The following officers were elected for the ensuing year: President, H. P. C. Wilson, M.D. Vice-Presidents, Drs. L. McLane Tiffany and G. Ellis Porter. Recording Secretary, Dr. Wilson G. Register.

Louisiana State Medical Association held its third annual meeting in New Orleans on March 31st and April 1st and 2d; Dr. J. W. Dupree, President, in the chair. The following office-bearers were elected for the ensuing year: President, C. M. Smith, M.D., of St. Mary. Vice-Presidents, Drs. D. R. Fox, J. P. Davidson, P. S. Postell, A. A. Lyon, G. M. Brumby, O. P. Langworthy. Secretary, Dr. L. F. Salomon. The next meeting will be held at New Orleans, on the last Wednesday in March, 1881.

Medical Society of the State of Tennessee.—The 47th annual session of this Society was convened at Knoxville on the 6th of April; Dr. E. M. Wight, of Chattanooga, President, in the chair. The following officers were elected for the ensuing year: President, B. B. Lenoir, M.D., of Lenoir's. Vice-Presidents, Drs. M. M. Alexander, of Knoxville, W. M. Clarke, of Nashville, and T. J. Tyner. The next meeting will be held at Nashville, on the first Tuesday in April, 1881.

Medical Society of the State of California.—The tenth annual session of this Society was convened at San Francisco on the 21st of April; Dr. A. W. Saxe, of Santa Clara County, President, in the chair. The following officers were elected for the ensuing year: President, Dr. F. W. Todd, of Stockton. Vice-Presidents, Drs. G. G. Tyrrell, of Sacramento; G. W. Davis, of Chico; A. H. Agard, of Oakland; and C. A. Kirkpatrick, of San Mateo. Secretary, Wallace A. Briggs, of Sacramento. The next meeting will be held at San Francisco, on the third Wednesday in April, 1881.

A Minister of Health.—It affords us sincere pleasure to record the fact that in the formation of the new British Ministry the President of the Local Government Board, upon whom it devolves to carry out the provisions of the Public Health Acts, has been assigned a seat in the Cabinet, thus making the health interests of the country an integral part of the ministerial policy, and insuring in fact what has long been promised in a figure of speech, a policy having for its maxim, *Sanitas sanitalum, omnia est sanitas*.

The Lithophone.—At the meeting of the Académie de Médecine of March 30, Dr. LANGLEBERT presented a new instrument, made under his directions by MM. Mathieu Fils, for the diagnosis of vesical calculi. The instrument is composed of a small cylindro-conical drum of glazed pasteboard to the extremity of which an exploring sound is attached. Such is the resonant power of this apparatus that the smallest stroke, an insensible grazing of the beak of the sound upon a stone in the bladder, becomes greatly amplified, and resounds in the drum where it appears to be produced. The illusion is said to be complete, the bladder, seeming to be brought under the ear of the surgeon. It is needless to dwell on the utility of the lithophone for finding vesical calculi and small fragments after lithotrity. The instrument is figured in *Le Progrès Médical*, 3 Avril, 1880.

German Pharmacopœia.—A commission for the revision of the German Pharmacopœia will meet next autumn, and it is expected that the new edition will be ready in 1881.

A Hint to Schoolmasters.—It is a notorious fact that scarlet fever and other infectious diseases are constantly introduced into schools by pupils in whose homes are cases sick or convalescing from these diseases. With a view to preventing occurrences of this character, we note with pleasure that the principal of an English school has recently issued a circular to parents, with a view to prevent the attendance of those pupils who have been exposed in their families to any of the infectious diseases, and we commend his example to all in similar authority.

Personal.—Princess Pauline, of Wurtemberg, has been recently married to Dr. Willim, of Breslau. It will be remembered that a princess of Holstein-Sonderburg, sister to Prince Christian, of Schleswig-Holstein, is the wife of Professor Esmarch, of Kiel.

Literary Notes.

The last number of the *Bibliothek for Læger*, a prominent Danish medical journal, published at Copenhagen, has for its leading paper a careful and complete translation of Dr. S. W. Gross's elaborate and critical study of sarcoma of the long bones which originally appeared in the numbers of the *American Journal of the Medical Sciences* for July and October, 1879.

A work on the "Diagnosis of Diseases of the Spinal Cord," by Dr. Gowers, is announced by Churchill, of London.

Dr. J. Wickham Legg, of St. Bartholomew's Hospital, has just published, through Mr. H. K. Lewis, of London, a volume "On the Bile, Jaundice, and Bilious Diseases." Mr. Lewis has in press a treatise on "Dwelling-Houses, their Sanitary Construction and Arrangements," by Dr. Corfield, Professor of Hygiene in University College, London.

We have received the first number of the "Archives of Laryngology," a quarterly journal, edited by Dr. Louis Elsberg, in conjunction with Drs. J. Solis Cohen, Frederick I. Knight, and George M. Leferts. It contains original articles, clinical notes, transactions of Laryngological Societies, Reviews, abstracts of laryngological literature, and notes and queries. The scope of the "Archives" embraces Human and Comparative Morphology and Physiology of the Throat, and Pathology and Therapeutics of Throat Diseases, in the widest signification of these terms, and the contents of its first number are of a high standard of merit, and the typographical appearance all that could be desired. It is published by G. P. Putnam's Sons, and deserves the support of all interested in its specialty.

OBITUARY RECORD.—At London, on the 11th of April, aged 78, WILLIAM SHARPEY, M.D., LL.D., F.R.S.

Mr. Sharpey was born at Arbroath, in Scotland, on April 1, 1802. He studied at the University of Edinburgh, and in 1821 obtained the diploma of the Royal College of Surgeons of Edinburgh. The following winter he studied Clinical Medicine and Surgery in Paris, and in 1823 received the degree of M.D. from the University of Edinburgh. After practising for a while at Arbroath he proceeded to the continent and devoted himself to the study of anatomy and physiology. In 1831 he began his career as a teacher of anatomy as an extra-mural lecturer at Edinburgh, and five years later he was elected to the chair of anatomy and physiology in the University of London, as the successor of Dr. Jones Quain, which position he held until 1874. For years he held the enviable and unquestionable position of being the greatest teacher of anatomy and physiology in Great Britain. He was a contributor to the "Cyclopædia of Anatomy and Physiology," and one of the editors of Sharpey and Quain's Anatomy.

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